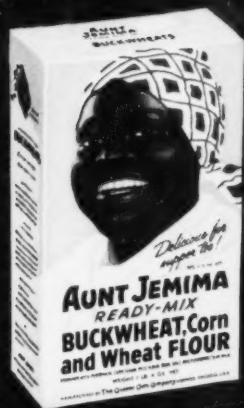
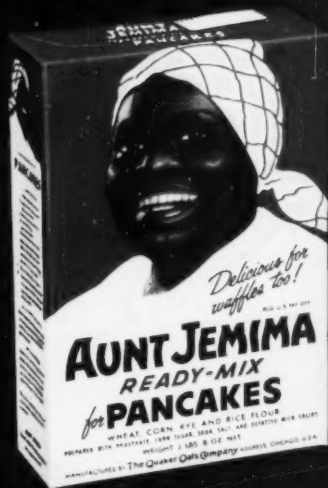


Modern packaging



Nominated for packaging's Hall of Fame. Story on Page 98

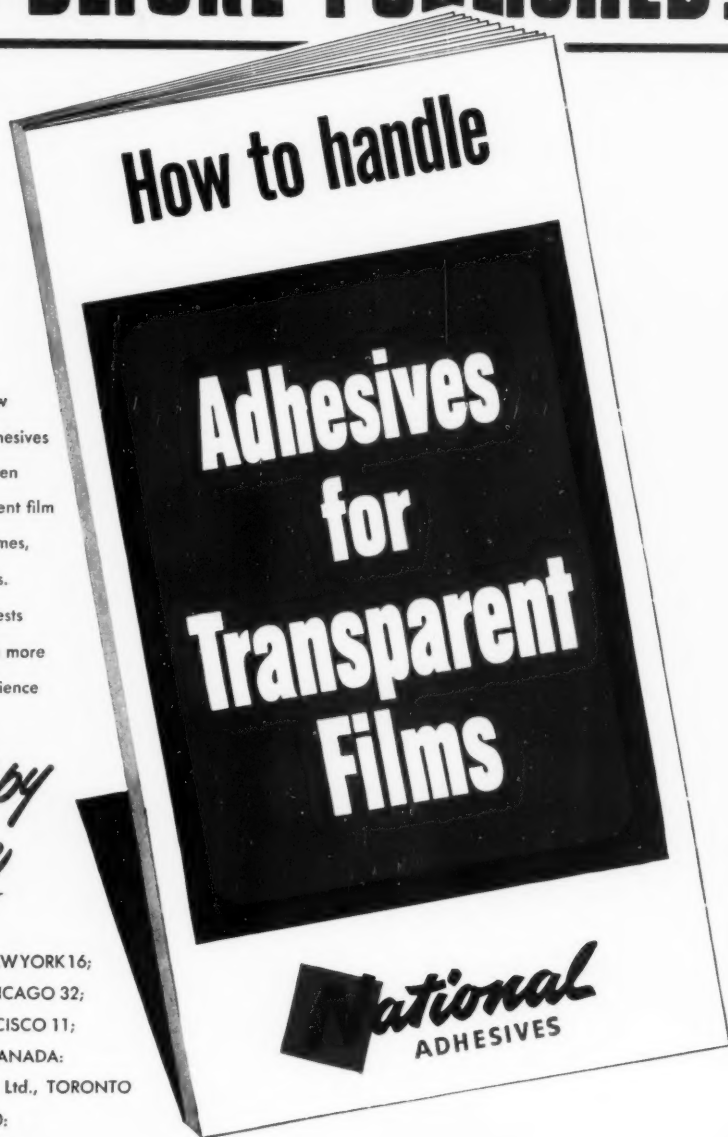
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Vol. 23 No. 4 December 1949

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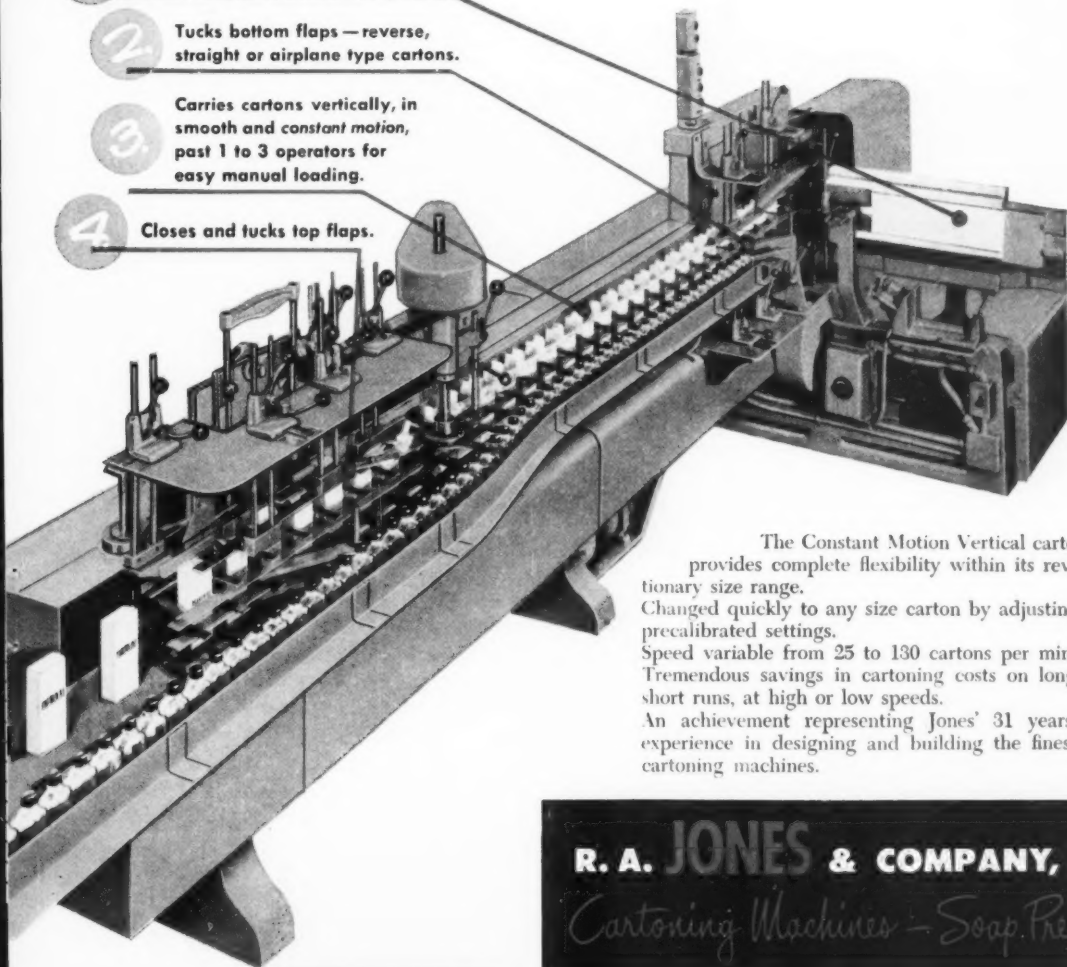
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CAN YOU AFFORD ECONOMY?

WITH ALL THE EMPHASIS that is currently being placed on cutting the costs of packaging, it is good to be reminded in a recent issue of *Design Trends*, the very interesting newsletter of Van Doren, Nowland & Schladermundt, that skillful packaging shouldn't just *save* money—it should *make* money for the manufacturer.

Too much of today's economy talk sounds like re-trenchment—digging a hole and burrowing in. This country wasn't built that way. Packaging, in particular, owes its spectacular growth to entrepreneurs who were willing to bet that consumers would respond to the benefits of protection and convenience by buying more goods and boosting net returns beyond the cost of the packaging. That's still the fundamental truth.

This dynamic approach is found in Gillette's adoption of the molded plastic dispenser-package for razor blades. Certainly there is no comparison in cost between that and the conventional package, even though the dispenser does away with blade wrapping, cartons and overwrapping. But convenience and gadget appeal gave Gillette one of the most effective sales tools in years. If you don't think it made inroads in competitors' sales, just look how fast the others scrambled to get into an unenviable "me, too" position.

The same example can be found in almost any use of the polyethylene "squeeze" bottle. Although price is coming down, it's still a premium-price package. But the company that pioneered the intriguing and handy dispensing package came from nowhere to near the top of the deodorant field in two years. Where would they be had they lacked the courage to pay more, not less, for packaging?

In packaging, wasted opportunity as well as wasted dollars can be costly.

The Editors

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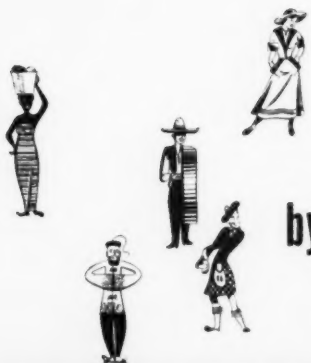
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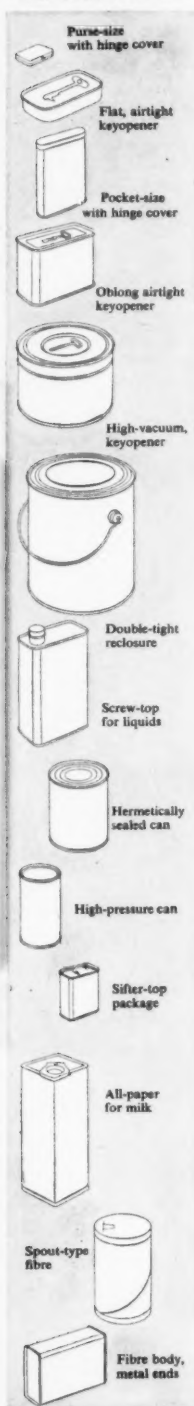
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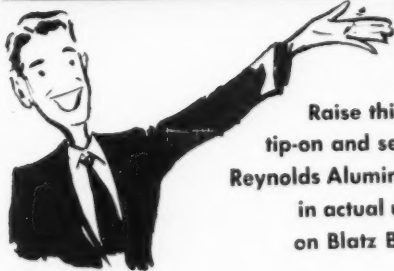
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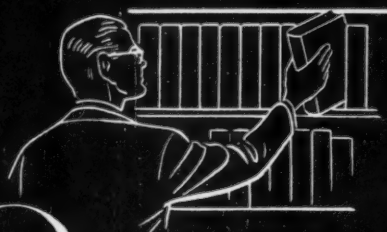


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San Francisco, Calif.	Blake, Moffitt & Towne
San Jose, Calif.	Blake, Moffitt & Towne
Seattle, Wash.	Blake, Moffitt & Towne
Sioux City, Iowa	Western Newspaper Union
Spokane, Wash.	Blake, Moffitt & Towne
Springfield, Mass.	Bulkeley, Dunton & Co., Inc.
	(Div. of Carter, Rice & Co. Corp.)
	Mill Brand Papers, Inc.
Stockton, Calif.	Blake, Moffitt & Towne
Tacoma, Wash.	Blake, Moffitt & Towne
Tampa, Fla.	Tampa Paper Co.
Toledo, Ohio	Paper Merchants, Inc.
Tucson, Ariz.	Blake, Moffitt & Towne
Washington, D. C.	The Mudge Paper Co.
Worcester, Mass.	C. A. Esty Paper Co.
	(Div. of Carter, Rice & Co. Corp.)



This new Blatz label reflects quality in every golden highlight and richly gleaming color. It adds to a famous product the self-selling magic of Reynolds Aluminum... the eye-appeal that makes a shopper reach, makes a host proud. And this waterproof Reynolds Aluminum label stays on and stays bright under wet refrigeration! For modern display as for protective packaging, the big sweep is to Reynolds Aluminum. Let us show you why, on your own product.

Reynolds Metals Company,
Richmond 19, Virginia

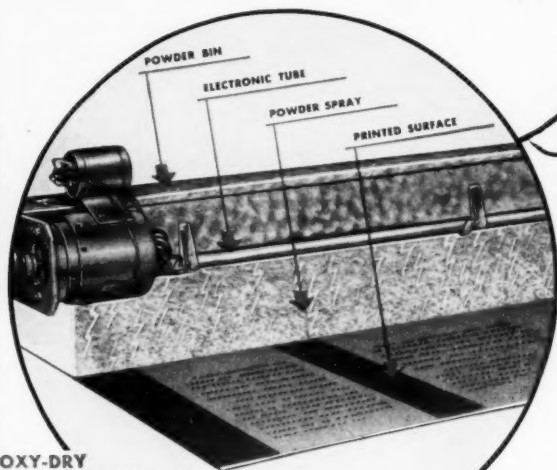
REYNOLDS ALUMINUM

DON'T STOP THE PRESSES BECAUSE OF OFFSET!

READY

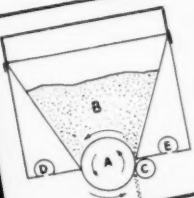
GO

STOP



OXY-DRY
Installs on Every Type of
Press . . . Works with
Any Kind of Printing
Process

HOW IT WORKS



As brass cylinder (A) re-
volves, anti-offset powder
(B) is distributed past

electronic tube (C) re-
ceiving 10,000 volt posi-
tive charge and bonding
instantly across freshly-
printed surface below.
The static electric charge (neg-
ative electric charge) in
the paper is instantly dis-
sipated. Air vents (D & E)
set up air curtains, and
are required only under
extremely drafty shop
conditions.

ASSURE FULL PRESS LOAD CAPACITY WITH **OXY-DRY** ELECTRIFIED POWDER METHOD OF OFFSET PREVENTION

Simply install the light, compact OXY-DRY Electrified Powder SPRAYER permanently in your press delivery and your offset troubles are over! This work-speeding, money-saving fact is being demonstrated daily on every type of press, the country over—sheet-fed, high-speed rotary and multi-colored . . . in letter-press, offset.

...

The OXY-DRY Electrified Powder process proves daily, in hundreds of exacting installations, that it prevents offset and eliminates static on all types of work . . . including over-print varnish, high-gloss and metallic inks on cartons, boxes, labels and cellulose printing.

...

Original cost, operating economy, effectiveness of offset-prevention and permanent health factors of OXY-DRY are so attractive as to amaze you. Get all the facts. Write today for full information applying to your type of press and work.

Write Dept. M P

OXY-DRY SPRAYER CORPORATION

320 S. Marshfield Ave., Chicago 12, Ill.

OXY-DRY

full-press-delivery offset prevention

FOIL BOX BOOSTS TOY SALES



The striking Foil Carton
for Constellation model airplanes
produced by United

Toys, just as do cosmetics, foods, hardware,
and hundreds of other products, depend heavily
on impulse buying. And here is where Foil Cartons
outshine every other packaging material.
Their light-reflecting surface attracts the eye, holds attention
... clinches sales. Every day more products are packaged
in Foil Cartons. How about your product? Does it stand out
on crowded shelves and counters? Does it stop
the shopper's roaming eye? Does it outsell competition?
It will in Foil Cartons. Let us show you how.



UNITED BOARD AND CARTON
Corporation

P. O. Box 1318 • Syracuse, New York

Board Mills:

Lockport, N. Y.; Thomson, N. Y.; Urbana, O.

Carton Plants:

Victory Mills, N. Y.; Syracuse, N. Y.; Brooklyn, N. Y.; Cohoes, N. Y.; Springfield, O.

Let's not be misled

TUPPER!

Originators and largest manufacturers of flexible table and housewares Poly-T (trade mark) Tupperware

... and, incidentally the only such products to be known, by name, to the Colonel's Ladies and the Judy O'Grady's of the North American Continent; the British Isles; Continental Europe and the far corners of the world ... some of it is on its way with the Hassoldt Davis Expedition into Africa, French Mauretania and the Ivory Coast.

To assume that the "blood, sweat and tears" by which that place in the sun known as leadership was attained without some thought of preservation of standards and principles, would be a very broad and naive assumption indeed.

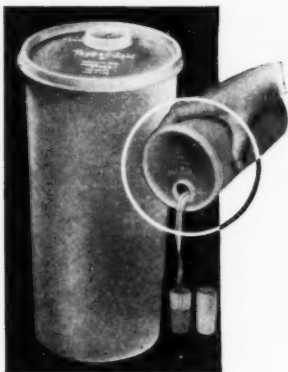
At the moment, this is accomplished through the monopoly which this organization has created for Tupperware, Poly-T (trade mark) products. For, there is only one Tupper

Poly-T and only one Tupperware. Tupper products, designed, developed and made by this organization are identified as such by being plainly marked on the bottom of each piece.

This identification means too, that no Tupper product; no application of Tupper Poly-T (trade mark) has ever been, or ever will be made available for any purpose or use until all the circumstances and conditions to which such product or application may be subjected, have been thoroughly explored.

So let's not be misled as products fashioned of polyethylene are under consideration.

Instead, make certain that those originators and largest manufacturers of flexible table and housewares are included in those considerations.



The Tupperware 50 oz. Canister, 4 1/4" diameter with Tupper Seal, flexible, air and liquid-tight Pour All cover is an outstanding example of that principle mentioned above ... "no Tupper product ... has ever been made available ... until all the circumstances and conditions to which such a product ... may be subjected, have been thoroughly explored."

This most recent addition to the famous family of Tupper Canisters was conceived, designed and made only after following this procedure.

For the purpose of serving as the decanter for the contents of a No. 5—46 oz. juice can, this Tupperware piece has found extraordinary favor.

In the matter of use as a storage container into

which prepared liquid refreshments may be placed until decanted it has no equal.

For the keeping of celery in the stalk, carrots and many other vegetables fresh and crisp, enthusiastic comments have been many.

The purchase and use of one has almost invariably been followed by the buying of one or two more. They fit so nicely in the refrigerator and do so many things so well, they have, in the relatively short time in which they have been available, become a tremendous item in production.

8 1/2" tall, 4 1/4" diameter at the top, tapering gracefully and gently to 3 1/2" diameter at the bottom and made in snowy white, Tupper Poly-T (trade mark) "material of the future".

TUPPER CORPORATION

Manufacturers of — CONSUMER, INDUSTRIAL, PACKAGING AND SCIENTIFIC PRODUCTS

FACTORIES: Farnumsville, Mass., and Cuero, Texas

New York Show Rooms 225 Fifth Ave.

ADDRESS ALL COMMUNICATIONS TO: Department A

COPYRIGHT TUPPER CORPORATION 1949



CHAMPION
Kromekote[®]
CAST COATED PAPER

makes a rich impression

THE CHAMPION PAPER AND FIBRE COMPANY • HAMILTON, OHIO

District Sales Offices: NEW YORK, CHICAGO, PHILADELPHIA, DETROIT, ST. LOUIS, CINCINNATI, ATLANTA, DALLAS, SAN FRANCISCO



SAVES UP TO 60%

by using Bemis TITE-FIT TUBING

This recent letter from a Tite-Fit Tubing customer shows what big savings are realized when this waste-eliminating method is used.

This versatile tubing fits almost any shape and a wide variety of package sizes. One roll may cover many different diameters and lengths without waste.



BEMIS BRO. BAG CO.

Brooklyn 32, New York



Also manufactured by Canadian Bag Co., Ltd., Montreal, and Ontario Bag Company, Port Colborne, Ontario.

Thermoid Company
AUTOMOTIVE - INDUSTRIAL - OIL FIELD - TEXTILE PRODUCTS
TRENTON - NEW JERSEY - U.S.A.

Bemis Brothers Bag Company
Second Avenue and 51st Street
Brooklyn 32, New York

Gentlemen:

We have used Tite-Fit Tubing since its inception over 10 years ago. Accurate time study figures show our savings in labor costs on regular packaging operations to be as high as 33% to 60%.

In addition, Tite-Fit Tubing has also provided the superior covering that is required for our export packaging. We are particularly pleased by the favorable comment we receive from our customers on the neat, secure bales in which our merchandise is shipped.

Very truly yours,

Ward A. Hunt

Traffic Manager,
Thermoid Company

Perhaps you will find equally large savings with Tite-Fit Tubing. It's worth investigating. Get the facts. Mail the coupon now.

MAIL COUPON NOW

BEMIS BRO. BAG CO., 5130 Second Ave., Brooklyn, N.Y.

- ☐ Send descriptive folder on TITE-FIT TUBING
☐ Send sample. Our packages are approximately _____ inches in circumference. (Please specify).

Name _____

Firm _____

Street _____

City _____ Zone _____ State _____



Five examples of a policy

Here are five successful brands of aluminum household foil.

It is Kaiser Aluminum's policy to help establish aluminum foil customers such as these . . . not only through consistently dependable service, quality foil, prompt deliveries . . . but also through technical assistance.

To help realize this aim, Kaiser Aluminum

Foil is produced in a wide range of sizes—widths from $\frac{3}{8}$ of an inch to $30\frac{1}{2}$ inches . . . thicknesses from .00025" to .006".

We believe we can be of help to *you*.













Simply call any sales office listed below—and you'll get action.

Kaiser Aluminum Foil is produced by Kaiser Aluminum & Chemical Corporation.

Kaiser Aluminum Foil

SOLD BY KAISER ALUMINUM & CHEMICAL SALES INC., KAISER BLDG., OAKLAND 12, CALIF. . . . WITH OFFICES IN:
Atlanta • Boston • Chicago • Cincinnati • Cleveland • Dallas • Denver • Detroit • Houston • Indianapolis • Kansas City • Los Angeles,
Milwaukee • Minneapolis • New York • Oakland • Philadelphia • Portland, Ore. • Seattle • Spokane • St. Louis • Wichita



 **RITTMAN**
PHONE 81
 **AKRON**
BLACKSTONE 3176
 **CHICAGO**
WHITEHALL 5820
 **CINCINNATI**
MAIN 9248
 **CLEVELAND**
TOWER 1-1540
 **COLUMBUS**
UN-0734
 **CUYAHOGA FALLS**
WALLBRIDGE 2173
 **MANSFIELD**
PHONE 29006
 **NEW YORK**
MURRAYHILL 6-7898
 **PITTSBURGH**
ATLANTIC 1-3505
 **TOLEDO**
LAWDALE 5768
 **YOUNGSTOWN**
Phone Canfield Ohio 34129

REACH FOR THE SALES ADVANTAGES

OF *planned packaging*

Manufacturers in widely varied lines are finding today that packaging is one of the important details to examine in any program of improving the product's sales position in retail outlets.

COLOR — Brighter, cleaner color or the use of four colors instead of two may give your package the eye appeal it needs to make a better showing against sales counter competition.

SIMPLIFICATION — You may find, as other manufacturers have, that a printed carton can do what has previously required a carton shell plus overwrap.

VISIBILITY — A window carton may give you the inviting product visibility to speed up self-service sales.

IDENTIFICATION — A new design or a new color scheme may spotlight your brand name and help your product capitalize more effectively on your national advertising program.

PACKAGE LINE EFFICIENCY — A small modification in the design or construction of your package may accelerate filling and sealing on the high speed packaging line.

A good way to reach out for better merchandising performance is to reach for your telephone and get in touch with the **PLANNED PACKAGING** office nearest you.



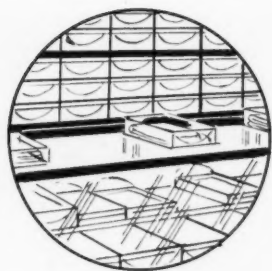
THE OHIO BOXBOARD CO.

RITTMAN, OHIO

Manufacturers of paperboard, folding boxes, corrugated and fibre shipping containers, and converted specialties.

SALES OFFICES: RITTMAN • AKRON • CUYAHOGA FALLS • TOLEDO • CLEVELAND • CINCINNATI
COLUMBUS • YOUNGSTOWN • MANSFIELD • PITTSBURGH • NEW YORK • CHICAGO • Capacity 500 tons daily

a boon to



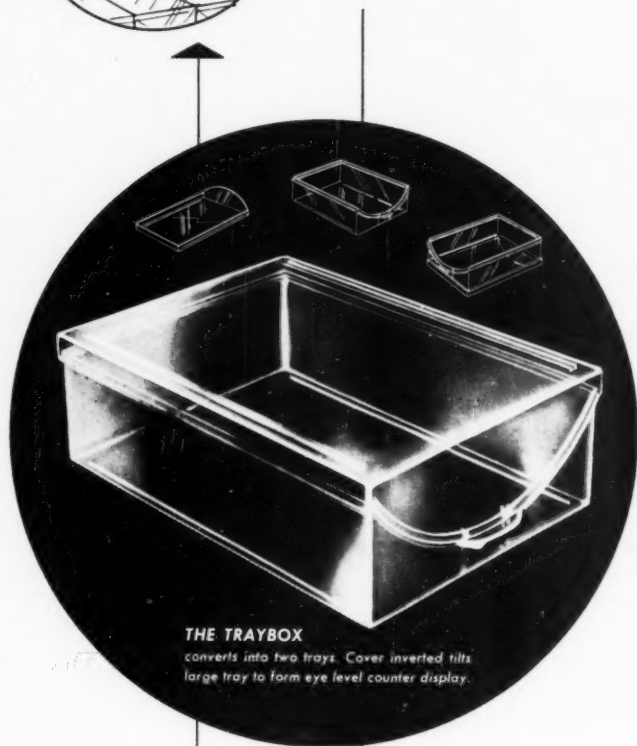
retailers

Ever since the first ready-made shirt was offered across a counter, retailers faced the problem of *how to keep merchandise clean, yet in full view of the customer.*

The Visual Sales Company, Hackensack, N. J. had an idea that a transparent plastic box would do the job. But then came the problem of *how to make it — at a price that made sense.*

Thanks to exceptional engineering and molding facilities, plus extensive merchandising experience, Columbia developed and produced the sensational "TRAYBOX" illustrated here — a rigid, transparent display box for shirts, lingerie, socks and similar items. The "TRAYBOX" comes apart easily to make handy trays for showing merchandise to customers.

An original packaging idea in plastics can boost the sale of your products. Turn to the company with both the facilities and the merchandising "know-how" to develop it . . .
COLUMBIA PROTEKTOSITE.



THE TRAYBOX

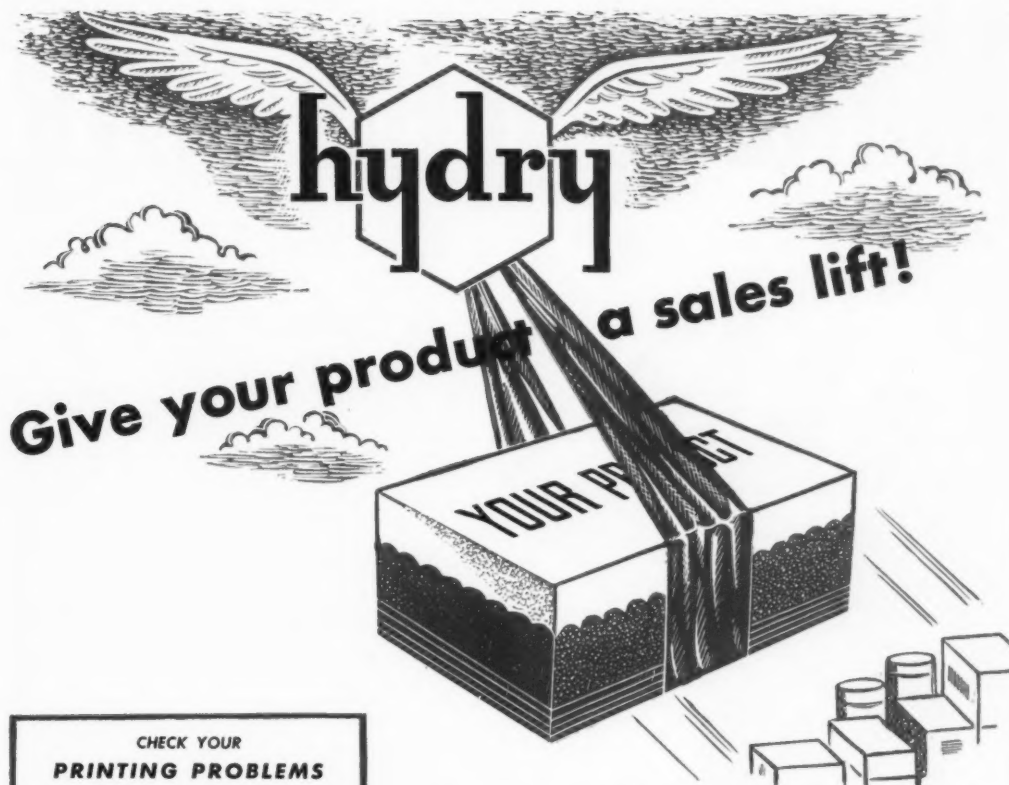
converts into two trays. Cover inverted tilts large tray to form eye level counter display.

another packaging success by



COLUMBIA PROTEKTOSITE COMPANY, INC., CARLSTADT, NEW JERSEY

New York Showrooms: Empire State Building



**CHECK YOUR
PRINTING PROBLEMS
AGAINST THESE HYDRY FEATURES:**

Fast Drying—Dries on most stocks in 20 to 30 minutes; on presses equipped with steam applicator dries instantly!

Odorless—Finished prints entirely devoid of ink odor.

Brilliant Colors—Ink film reflects light, gives superior brilliance and cleanliness.

Non-Offset—Possibilities of offset reduced to a minimum.

Non-Smear—Dry-hard finish extremely resistant to rubbing and smearing.

Non-Crystallizing—Can be overprinted, even after several weeks.

Sharper Printing—Does not spread or bleed.

Folding Qualities Improved—Affords better moisture content in paper stock.

Improves Heat-Sealing of Waxed Wrappers—Will not mix with wax film during heat-sealing operations.

The development of Hydry—a clean, brilliant odor-free ink—gave the packaging industry a brighter outlook for printing and production. No more waiting days and weeks for ink to dry. Hydry inks set instantly on the application of steam or vaporized water; set fast even without moisture. Waxing, folding or die-cutting operations can be started as soon as sheets come off the press.

Stimulate consumer demand for your product by presenting it in a container that will attract, identify the brand, and close the sale. Hydry inks can help you do this because they are available in eye-catching colors that sparkle and give your product a sales lift.

Food, confectionery and tobacco manufacturers have found that Hydry solved many of their packaging problems. However, Hydry inks are not limited to this field alone. They are also specified for other printing requirements in the graphic arts. Contact any member company of GPI and learn about Hydry's many applications.

GENERAL PRINTING INK COMPANY

DIVISION OF SUN CHEMICAL CORP.

10TH STREET & 44TH AVENUE, LONG ISLAND CITY 1, N. Y.

Offices in Principal Cities

GEO. H. MORRILL CO. • SIGMUND ULLMAN COMPANY • FUCHS & LANG MANUFACTURING COMPANY • EAGLE PRINTING INK COMPANY
AMERICAN PRINTING INK COMPANY • E. J. KELLY COMPANY • GENERAL PRINTING INK CORPORATION OF CANADA LIMITED



Make Your Identity

Stick!

...and there's no
better way than with a
STAR BRAND ADHESIVE...



STAR BRAND ADHESIVES give you this assurance:

No matter what your product or your package . . .

if it's labeled manually or by machine, there's a
Star Brand Adhesive to do your job dependably and flawlessly.

There's comfortable assurance and solid satisfaction in
knowing that your name, trademark and goodwill arrive
into consumers' hands intact and factory-fresh.

More important, it's plain good business!

Ceaseless research, finest raw materials, and carefully
controlled compounding puts the reliability into
Star Brand Adhesives that means **RESULTS.**

- STAR Case Sealing Glue
- STAR Folding Box Glue
- STAR Hot & Cold Pick-Up Gums
- STAR Tin Paste
- STAR Brightwood Gum

- STAR Carton Sealing Glue
- STAR Bench Paste
- STAR Tube Glue
- STAR Lap End Paste
- STAR Tightwrap Glue



Send for samples without obligation.

Bingham
Adhesives

BROTHERS COMPANY

SINCE 1826

New York Philadelphia Baltimore Rochester Newark
406 Pearl Street 1315 Race Street 131 Colvin Street 980 Hudson Avenue Lister Avenue

New Weighing System Cuts Production Costs



Food, confectionery, and bakery product manufacturers report substantial savings with Wright's Hy-Tra-Lec Weighers. Shown above is an installation at Becker Pretzel Bakeries, Inc., one of the big Eastern names in the pretzel and potato chip industries.

(For Technical Readers: Hy-Tra-Lec has neither beam nor spring scales. Utilized for the first time in automatic machinery are the principles of "positive displacement," resulting in a weighing accuracy at high speeds which exceeds previously accepted standards. You would observe with interest the simplicity of the weighing unit itself and the integration of the vibrator feed. Indications point to the possible conclusion that this new weighing system may be regarded in the future as having opened an entirely new vista in weighing engineering.)

Wright's Hy-Tra-Lec Sets New Mark For Accurate, High Speed Weighing & Filling

Push production costs down by net weighing and filling more accurately at high speeds. That's the money-making move taken by a growing number of manufacturers packaging a variety of foods, confections, and small bakery products.

Wright's Hy-Tra-Lec Weighers will make a real dent in your 1950 cost figures. Fully automatic operation for rigid containers. Semi-automatic when bags are used. Available with single or multiple weighing head units. Range: One-half ounce to 16 ounces.

Products handled to date include hard candies, wrapped candies, gum slices, marshmallows, pretzels, potato chips, cookies, crackers, corn chips, shelled nuts, small metal and wood parts, cranberries, and a host of food products.

Write today for complete information.

WRIGHT MACHINERY COMPANY

ESTABLISHED 1893 · DURHAM, NORTH CAROLINA
SUBSIDIARY OF THE SPERRY CORPORATION



COMPANY SALES OFFICES: JERSEY CITY · CHICAGO · DURHAM
WEST COAST REP.: KING & ANDERSON, SAN FRANCISCO
SOUTHWEST REP.: R. P. ANDERSON COMPANY, DALLAS
CENTRAL REP.: HAL HUDSON EQUIPMENT COMPANY, TOLEDO
EUROPE: SPERRY GYROSCOPE COMPANY, LTD., LONDON

Wright Machinery Company
500 Calvin Street, Durham, N. C.

Gentlemen: Please send me latest information on
your Hy-Tra-Lec Automatic Weighers.

Name

Company

Address

City State



let's be selfish

wherever you are....

cotton bags

are your lowest-net cost

container...



..and unselfish

**you are helping to keep down the
cost of living by using cotton bags**



LET'S BE SELFISH: Fine quality Cotton Bags are your lowest net-cost container. They are easier to handle, stack, and store. They provide better protection. The gleaming white or colorful patterns assure much better appearance.

... AND UNSELFISH: They have high salvage value. Housewives the country over want them because they make their precious budget dollars

go much farther. Furthermore, there is a reliable Cotton Bag Buyer near you who will make firm offers in advance... 60 days or more.

We will quickly provide his name or address. Or, if you prefer, we will have him get in touch with you. Write us... Write us TODAY.



TEXTILE BAG MANUFACTURERS ASSOCIATION

611 Davis Street

Evanston, Illinois

Sell the Shopper
who is
"JUST LOOKING"



**PACKAGE WITH
 LUMARITH***
 TRANSPARENT FILM WINDOWS

Lumarith transparent film window box
 manufactured by Louisville Container
 Corporation, Louisville, Kentucky.

Packages with Lumarith transparent film windows build sales on admiring looks. They tell the product story at a glance—supplying the answers to shopper's questions while protecting the merchandise.

Lumarith transparent film is crystal clear . . . produces flat, wrinkle-free windows. Its satin-smooth surface is ideal for printed messages.

Get together with your supplier and his Celanese representative and discover the selling power and *true* economy of Lumarith.

Celanese Corporation of America,
 Transparent Films Dept. 8-L,
 180 Madison Avenue, New York 16, N. Y.

Celanese*
PLASTICS

*Reg. U. S. Pat. Off.



ATLANTA • BOSTON • BUFFALO • CHARLOTTE • CHICAGO • CINCINNATI • DETROIT • LOS ANGELES • NEW ORLEANS • PHILADELPHIA
 PORTLAND, ORE. • PROVIDENCE • ROCHESTER • ST. LOUIS • SAN FRANCISCO • MONTREAL • TORONTO



PROTECT YOUR PRODUCT from Factory to Consumer

- CORRUGATED AND
SOLID FIBRE BOXES
- FOLDING CARTONS
- KRAFT BAGS AND
SACKS
- KRAFT PAPER
AND SPECIALTIES

Gaylord Protective Packaging assures a safer journey for your product from the moment it leaves your factory, through all the hazardous steps of distribution, down to the dealers' shelves.

It's the kind of protection you should expect from your shipping container. When the dealer receives your product in first class condition, he feels more kindly toward you—and your product is placed on his shelves in a better competitive position. Result—greater sales.

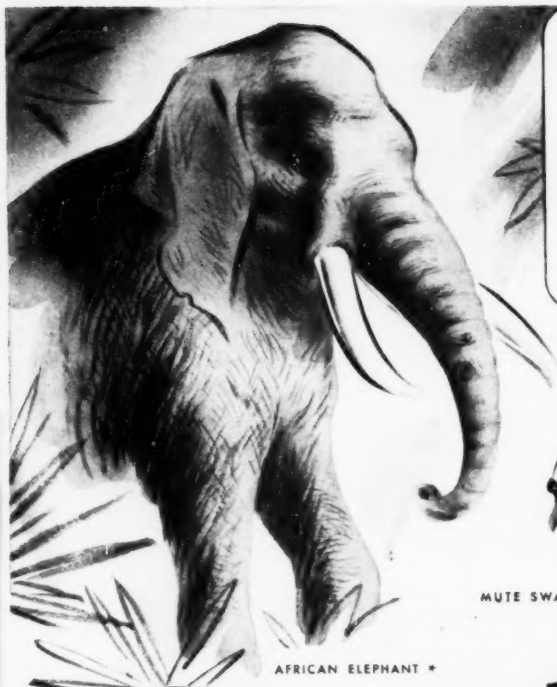
Put Gaylord's Protective Packaging to work for you—Call the nearest Gaylord Sales Office.



*From Coast-to-Coast
There is a Gaylord
Sales Office Near You*

GAYLORD CONTAINER CORPORATION, General Offices: SAINT LOUIS

New York • New Orleans • Houston • Detroit • Fort Worth • Des Moines • St. Louis • Bogalusa • Westaco
Greensboro • Omaha • Chicago • Jersey City • Los Angeles • Jacksonville • Tampa • Oklahoma City
San Antonio • Milwaukee • New Haven • Sunter • Mobile • San Francisco • Seattle • Oakland
Philadelphia • Cincinnati • Greenville • Memphis • Little Rock • Appleton • Jackson • Charlotte • Atlanta
Indianapolis • Minneapolis • Columbus • Dallas • Portland • Kansas City • Chattanooga • Hickory • Miami



AFRICAN ELEPHANT *

PROTECTION

AND
Beauty



MUTE SWAN **



PAPERS

For The FOOD INDUSTRY

The primary job of any paper used to wrap foods or line boxes and cartons is to protect its contents from dirt, rough handling, loss in color, flavor or weight. On the success of this protection rests the food processor's reputation . . . and profits.

Thousands of food processors in the United States look to KVP, with its dozens of highly specialized papers, to provide this security.

They also look to KVP artists and printers to provide attractive, sales-compelling designs and printing.

Protection and beauty, all in one package . . . that is the KVP story.

*No one except maybe another elephant ever accused old *Loxodonta africana* of being beautiful. But his great size and strength make him a symbol of power and protection.

INDUSTRIES SERVED

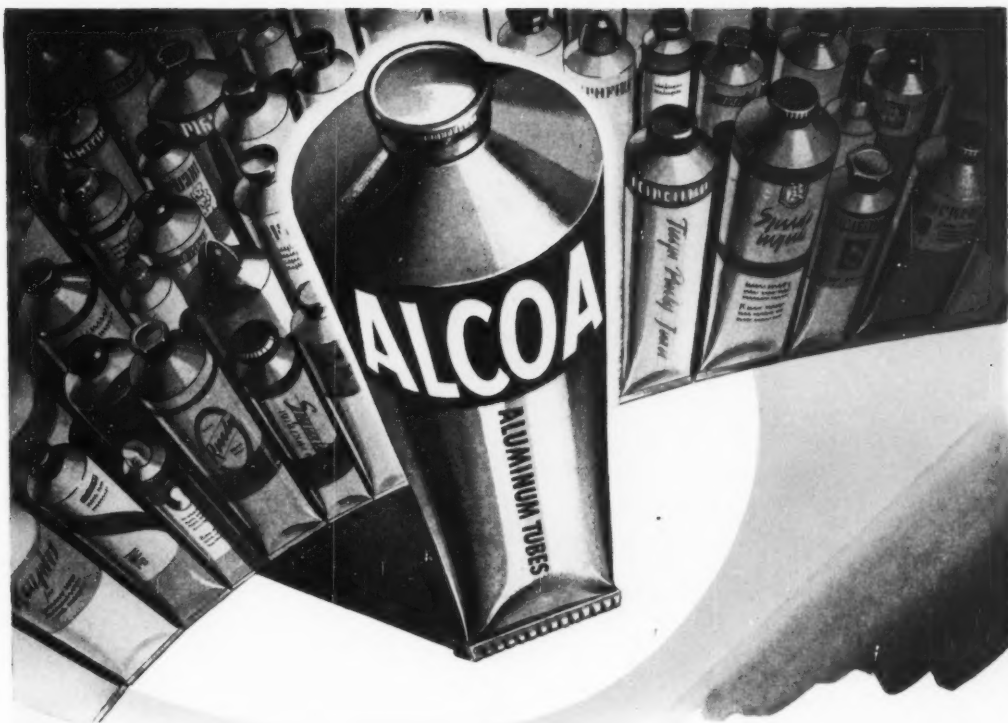
BAKING	MEAT
Bread - Cracker	Packing - Locker
Cereal	Retail
DAIRY	
Butter - Cream - Cheese	
Ice Cream - Milk	
FISH - FRUIT - FROZEN FOODS	
POULTRY - SHORTENING	
VEGETABLE	

**The mute swan, *Cygnus olor*, is no slouch when it comes to protecting his nest and young, but his chief asset is his well deserved fame for grace and beauty.

Kalamazoo Vegetable Parchment Company

PARCHMENT • MICHIGAN

ASSOCIATED COMPANIES: KALAMAZOO VEGETABLE PARCHMENT CO., DEVON, PENNA.
KVP COMPANY OF TEXAS, HOUSTON, TEXAS
HARVEY PAPER PRODUCTS CO., STURGIS, MICHIGAN
IN CANADA: THE KVP COMPANY LIMITED, ESPANOLA, ONTARIO
APPLEFORD PAPER PRODUCTS LIMITED, HAMILTON, ONTARIO • MONTREAL, QUEBEC



BETTER BACKGROUND FOR A BRIGHTER SALES PICTURE

ALUMINUM presents a background to package designers that is unexcelled by any other metal used for tubes. Alcoa Aluminum Tubes accept all pigmented, highly-plasticized, lacquer-type exterior coatings. Offers better adhesion of the base coat . . . eliminates chipping and cracking . . . aluminum shoulders stay bright and clean.

To find out if these eye-catching salesmen are suitable for your product, send a sample to our Alcoa Packaging Laboratory. We'll test it . . . report back to you. No cost or obligation for the information.

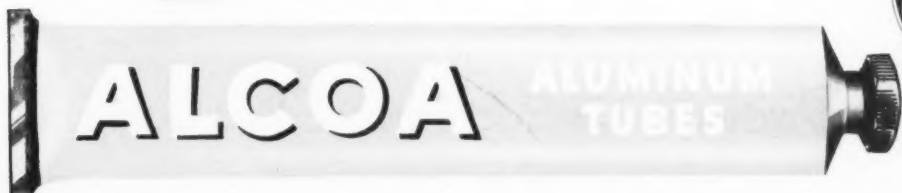
Address: ALUMINUM COMPANY OF AMERICA, 2129-M Gulf Bldg., Pittsburgh 19, Pennsylvania.



FREE Booklet "Packaging in Alcoa Aluminum Tubes" describes filling and closing operations; gives weights and capacities of tubes; lists standard sizes, dimensions and tolerances, and has many more pages of helpful information. Write for "Packaging in Alcoa Aluminum Tubes" today.

Advantages of Alcoa Aluminum Tubes

- Smart Appearance
- Greater Strength
- Light Weight
- Easy Dispensability
- Good Economy
- Non-Toxic





Small plastics in big volume is Owens-Illinois' specialty

HOW THIS PLASTIC CREATES CUSTOMERS

Probably the toughest problem in expanding sales is getting prospects to *try* a product the first time. That's where the extra sales appeal of practical *plastics* can help.

A nationally known packer, for example, uses the plastic closure illustrated above to help change his prospects into customers.

Sold as a premium with the product, the plastic cap has strong "housewife appeal." It's flexible, slips on and off as easily as a mitten, yet seals tightly. With it, the empty glasses become handy, reusable refrigerator jars. This extra value builds extra sales.

Owens-Illinois makes hundreds

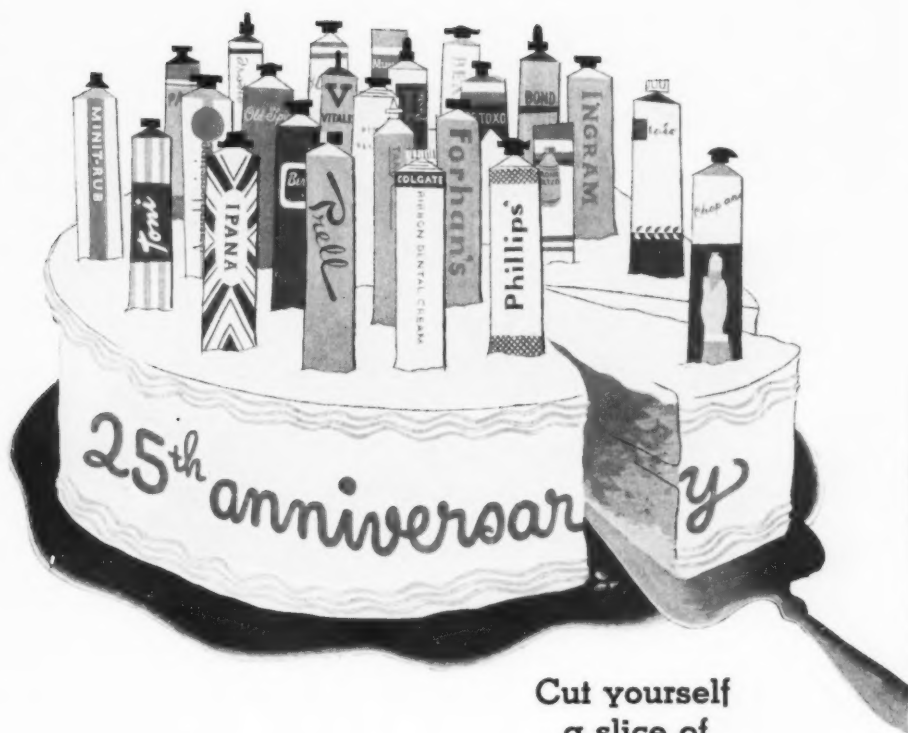
of such small plastics in huge volume. Whenever you need large quantities of a small plastic item, the odds are that our service will stand out for efficient, high-speed production . . . *at low cost.*

For prompt, courteous attention to your needs, call the Owens-Illinois branch office near you.

Plastics Division—Owens-Illinois Glass Company

TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

MODERN PACKAGING



**Cut yourself
a slice of
our experience!**

This is our 25th anniversary—which is one way of saying we've had quite a bit of experience in making tubes. For some outstanding customers, as you can see.

It seems to us that where experience counts most in our business is in solving your tube problems so they stay solved. For instance, by

eliminating "bugs" before they occur. By keeping uniformity and reproduction so exact that your millionth tube and your first are identically perfect twins.

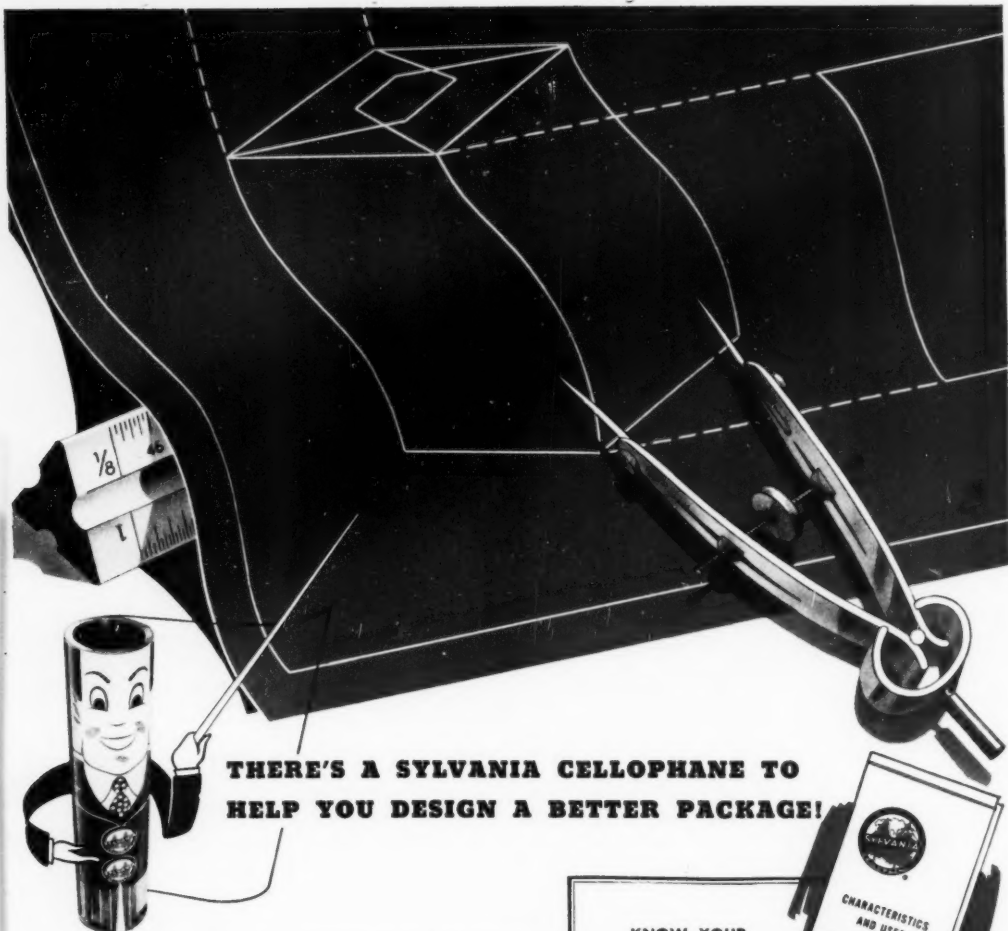
Yes, we're proud of our 25 years' experience. Prouder still of making it of practical value to our customers!

Sun Tube Corporation

181 Long Avenue, Hillside, New Jersey

Chicago 26, Ill. . . . James L. Coffield, Jr., 7720 N. Sheridan Rd.
St. Louis 1, Mo. . . . M. P. Yates, Arcade Building
Cincinnati 3, Ohio . . . Ralph H. Auch, 3449 Custer Road
Seattle 4, Wash. . . . King & Anderson, 1016 First Ave. South
San Francisco 3, Calif. . . . King & Anderson, Western Merchandise Mart, 1355 Market Street
Houston 2, Tex. . . . R. P. Anderson Co., 603 M & M Building

Los Angeles 27, Calif. . . King & Anderson, 1001 No. Vermont Ave.
St. Paul 1, Minn. . . . Alexander Seymour, 1411 Pioneer Bldg.
Dallas 2, Tex. . . . R. P. Anderson Co., 317 Texas Bank Bldg.
Portland 1, Ore. . . . King & Anderson, Foot S. W. Gibbs St.



**THERE'S A SYLVANIA CELLOPHANE TO
HELP YOU DESIGN A BETTER PACKAGE!**

Here is *transparency*... gleaming clarity and visibility. Here is *economy*. Cellophane gives you the most for your packaging dollar. Here is *beauty*. It can be economically printed on high speed presses with lustrous color effects. Here is *versatility*. Cellophane is produced with just the protective qualities demanded by your product. It can be moisture-proof or not. It comes with or without heat sealing qualities—in different weights—for hand wrapping or high speed application on automatic machinery.

Every product demands its own combination of *specific* packaging properties. That is why Sylvania offers different types of cellophane. Let the Sylvania representative help you determine the one for your package. You will find him most cooperative.

KNOW YOUR CELLOPHANE!

The booklet, "Characteristics and Uses of Sylvania Cellophane," fills a long felt want in the packaging field. Here are all the essential facts you need to determine the proper use of Sylvania Cellophane. Basic data on types, weights, protective qualities and recommended use is given in concise, easy-reference style. It's packed with the kind of information you need to meet today's packaging requirements. Write for your copy today. Address Market Development, Department MP-12.



SYLVANIA CELLOPHANE

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

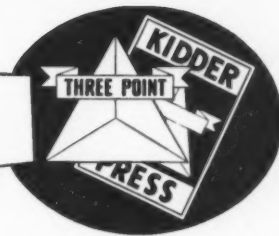
Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N. Y.

Plant: Fredericksburg, Va.



KIDDER POINTERS



No. 24.

Observations of trends and indications in packaging... noted by the manufacturers of Kidder "3 Point" Presses, Kidder Press Company, Inc., Dover, N. H.

A "progress report" on the growth of pre-packaged meats and the self-service trends in meat merchandising is yours in the October, 1949, issue of MEAT.

A new adhesive which anchors labels to bottles so securely that two weeks' immersion in water at 70°F does not result in labels falling off has been marketed. It can be used in automatic labeling machines running at normal speed and sets rapidly.

"Coffee bags" is the latest method of marketing instant coffee. Filter paper bags tied with string contain a combination of soluble and roasted granular coffee. Needs only to be dipped in a cup of hot water to make fresh coffee.

Small packers should be interested in a new weighing machine of the bench type. Has many of the best features of larger, fully automatic machines. The new machine weighs and fills containers.

If you package food or supply food packages to food marketers, you'll find it profitable to read "Fundamentals of Package Function" . . . an outline and discussion of six important food products properties and their requirements in packaging. You'll find it in the October '49 Modern Packaging.

By packing one fully transparent display carton in with each case of regular cardboard cartons of such foods as cereals, cookies, popcorn, dried fruits, etc., it is possible to put plenty of eye-appeal into grocery displays. A material known as Vuepak makes this possible. It's a cellulose acetate that is clear, tough, rigid and easily fabricated on automatic machinery. A box made of this material makes the contents 100% visible . . . and tells the prospective purchaser at a glance what he is buying when he takes a regular box of the product.

Plastics loom large in packaging's future, says a report by the Department of Commerce. Based on this report, Packaging Parade for October, 1949, takes a look into the future. If you're planning along these lines for your packaging needs, you'll find the article helpful.

A new package idea: incorporating a steel magnet in the package to anchor steel items in place and prevent spillage of contents. It is presently being used by a manufacturer of bobby pins, common pins and safety pins, and by another company which makes fishing flies.

Dry vegetables such as rice, beans, peas, etc., are more and more being sold in cellophane bags rather than in other type containers, according to a survey by the U. S. Department of Agriculture. Impulse buying value of the cellophane package is thought to account for the change.

A newly improved "unscrambler" machine designed to take any size or shape container has just been marketed. It is said to offer many advantages over former equipment.

If you'd like to know what bakers are thinking about packaging their goods . . . and maybe get a lead on some business in this field . . . read "Bakery Packaging" in the October issue of Modern Packaging.

KIDDER PRESS COMPANY, INC., Printing Machinery, Dover, N. H.



WRAPPER ACHIEVEMENT OF THE MONTH

In the best tradition of fine "Celloprinting" is this Sunbeam bread wrapper — Kidder's nomination for the wrapper achievement of the month. Superbly accurate impression of all colors . . . clean cut design clearly bespeaking quality . . . it's a job that reflects credit on the skill of Highland Supply Company and the printing equipment by Kidder.

Highland Supply Company may well be proud of its record of being the first to successfully produce four-color 120 line screen process printing for cellophane by scale. Its progressive outlook has won it many other "firsts" in cellophane and foil printing. Kidder, first to introduce aniline printing to America, has now supplied Highland with four Celloprinters.

For a printing achievement second to none in its field, Kidder salutes:

HIGHLAND SUPPLY COMPANY
Highland, Illinois

"WRAP IT UP..."

Not so many years ago, this was one of the most commonly heard phrases in retail stores. Now it is becoming a rarity. For modern merchandising has developed packaging to the point where the merchandise more often than not is already "wrapped" or cartoned so attractively that it is a large factor in making the sale in the first place!

The importance of fine printing to packaging success . . . and ultimately to sales success . . . would be hard to exaggerate. The most carefully worked out package design would be a failure without excellent printing to back it up.

That's why production printers all over America put their "fussy" jobs on Kidder presses because every Kidder press is designed to combine the three essentials of fine printing:

Control over the paper, proper distribution of ink and accuracy of the impression. These things are yours in:

The two new Kidder designs of MULTI-COLOR INTERCHANGEABLE CYLINDER OIL INK PRESSES . . . for metal or rubber plates.

KIDDER ANILINE-TYPE PRESSES — the famous Aniliners — for high-speed — high-quality runs . . . including the narrow "Celloprinter," primarily for Cellophane.

CONTROL OVER
THE PAPER
PROPER
DISTRIBUTION OF
INK
ACCURACY OF THE
IMPRESSION



KIDDER

Manufacturer of "3 Point" Presses—so-called because they fulfill the three major requirements for perfect printing.



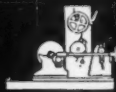
**MULTI-COLOR
LETTER PRESSES**

for waxed paper, box wrappers, etc., rewound or sheet-delivered — up to 72 inches in width.



**"ANILINER" and "CELLOPRINTER"
MULTI-COLOR PRESSES**

with gravure units — for decorative papers, cellophane, glassine, etc., — up to 65 inches in width.



**SLITTERS AND
REWINDERS**

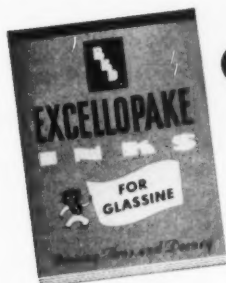
for paper mills, finishing rooms, and converting plants — up to 115 inches in width.

Which of these 4 new BBD ANILINE INK COLOR GUIDES do you need to plan your printing better ?

30 different colors
for aniline and roto-
grave printing on
TISSUE, KRAFT,
other absorbent
stocks



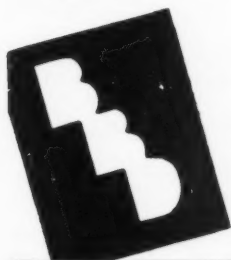
20 two-color combi-
nations of pigmented
aniline inks for
CELLOPHANE, ACE-
TATE, other plastic
films



40 pages of trans-
parent and opaque
GLASSINE printed
with pigmented ani-
line inks



47 pages of trans-
parent and opaque
GLASSINE printed
with dyestuff aniline
inks



If you print KRAFT . . . TISSUE . . . CELLO-
PHANE . . . ACETATE . . . GLASSINE and similar
stocks you will find the appropriate BBD COLOR
GUIDE a real aid in your planning. And, when it
comes to actual production, you will find BBD
ANILINE INKS the key to sharper, more brilliant
printing results . . . economically. So send the coupon
today for the color book you need — and, while
you're at it, ask for a "shirt-sleeved" BBD man to
call and tell you more about the world's favorite
aniline inks.

They're FREE
to package
printers
and planners



Bensinger Bros.

and Deeney

LARGEST MANUFACTURERS OF ANILINE INK IN THE WORLD

PHILADELPHIA • CHICAGO • WAKEFIELD, MASS. • LOS ANGELES

BENSINGER BROS. AND DEENEY
401 N. Broad St., Philadelphia 8, Pa.

Please send copies of the following
BBD COLOR GUIDES:

- 1 — HYDROTONE for TISSUE and KRAFT
- 2 — EXCELLOPAKE for CELLOPHANE
- 3 — EXCELLOPAKE for GLASSINE
- 4 — TRANSLUSTRO for GLASSINE

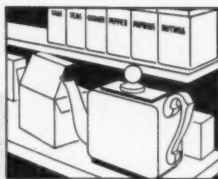
NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

In Teas and Spices, For Instance



Ridgelo
CLAY COATED
REG. U.S. PAT. OFF.
BOXBOARDS

THE CLAY-COATED BOX BOARD THAT'S CUSTOM-MADE FOR EVERY ORDER

**Produced in Accordance With Specific Needs, Ridgelo
Assures Cartons of Individuality and Practicality**

Perhaps the most important single factor in the merchandising of such staples as teas and spices is the caliber of their cartons, the degree to which they facilitate easy and confident brand identification by consumers. Through recognition of the exceptional role Ridgelo can play in that regard, this superb box board has become a leading choice of leading packers.

Additional to its superior printing surfaces, its easier forming and filling qualities, Ridgelo brings to these products the advantages of special, exclusive finishes for greater moisture protection.

Every order is custom-made, precision controlled, and consequently involves no necessity for compromises

in desired quality and basic characteristics. Further, the carefully recorded formula of each run assures complete consistency in re-order runs for every customer.

By manufacturing processes and policies as distinctive as the product itself, Ridgelo is enabled to offer boxboard quality that converts into carton economy!

**MADE AT RIDGEFIELD, N. J.
BY LOWE PAPER COMPANY**

REPRESENTATIVES

H. B. Royce, Detroit • Philip Rudolph & Sons, Inc., Philadelphia
A. E. Kellogg, St. Louis • Norman A. Buist, Los Angeles

AMAZING GLUE CRYSTALS

Quickly Dissolve in Cold Water!

PAISLEY *DEHIDRI GLUE CRYSTALS

Not a flake or powder . . . they are tiny granules that absorb water faster without lumping or forming a sludge. Available in many useful water taking grades. Handles a multitude of paper converting, paper container and box manufacturing, and packaging operations.

Made by the exclusive *DEHIDRI PROCESS

*DEHIDRI crystals are definitely superior to previously known cold water soluble glues. Tell us your gluing operation. We'll send demonstration sample at once!

*Patent applied for.

SIMPLE AS A-B-C

- A
ADD CRYSTALS TO WATER
- B
MIX A FEW MINUTES
- C
PUT INTO MACHINE, IT'S
READY TO USE

Paisley
SCIENTIFIC
ADHESIVE SERVICE

PAISLEY

PRODUCTS INCORPORATED

1770 CANALPORT AVENUE, CHICAGO 16, ILL. PHONE CANAL 6-2219
630 WEST 51st STREET, NEW YORK 19, N.Y. PHONE COLUMBUS 5-2860

Manufacturers of Glues • Pastes • Resin Adhesives • Cements and related Chemical Products

Now...NEW PROCESSES PERMIT US TO SAY:

"NO ALL-TRANSPARENT BOX CAN MEET OUR PRICE!"

Now—you can package your product in gleaming, clear-plastic PLASTAFOL* cartons . . . (cartons that *fold* for economical storage and shipment . . . strong cartons that set-up fast and out-last others) . . . AT PRICES NEVER BEFORE EQUALLED.

Thanks to new processes—new materials—PLASTAFOL CAR-

TONS . . . (the *only* folding, all-transparent cartons on the market) . . . are now available at new, low prices—15, 20 and 25 percent lower than we ever were able to offer before.

If you've always regarded clear plastic packaging as too costly . . . or, if you want to cut down on your clear-plastic packaging costs, write, phone or wire us today!

Plastafol Carton Case Histories:

Foremost cosmetic house now packages eyebrow pencil and refills in Plastafol carton 7½ inches long.

Well known Pharmaceutical House dresses up doctors' samples in neat Plastafol carton ¼ x 1½ x 3½ inches.

Men's garters "sold on sight" by leading men's accessories manufacturer using Plastafol carton, 3¾ x ½ x 3 ⅝ inches.

* *Trademark.*

TROTH • BRIGHT • PAGE

INCORPORATED

PAOLI, PENNSYLVANIA

Phone: PAOLI 1846

Today's Modern Sampler

Cross Swing Sifter Sampler



MADE
IN
LARGE
SIZES,
TOO



So good for sales! So easy to fill!

In the face of current selling conditions, distribution of product samples is rapidly becoming a necessity. And these Cross round miniatures provide the modern answer for the perfect sampling container.

Dressed as an exact replica of your full size container, patented Cross Swing Sifter Samplers are sure-fire for sampling all sorts of powders such as cosmetics, food, drugs, pharmaceuticals and anything else that can be dispensed through a shaker or a sifter.

LOW COST FILLING

Almost any standard filling equipment can be used to fill Cross Samplers. Just fill the inner section, and then slip the outer part over it. Then a simple twist of the top, and your product flows freely.



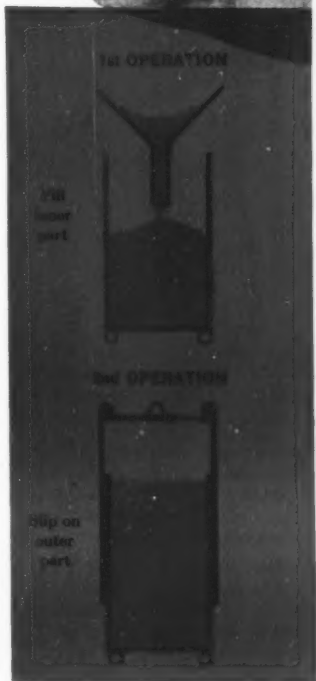
Ask for a representative to show you samples and discuss your problems.

CROSS PAPER PRODUCTS CORP.

4377 Bronx Boulevard

New York 66, New York

DESIGNERS • CREATORS • MANUFACTURERS OF INDIVIDUALIZED
ROUND AND OVAL PACKAGES



Use this yardstick
to measure
the effectiveness
of your
package



Today keen merchandisers find that these three considerations make an accurate yardstick for measuring effective packaging.

Consider the shopper. In this modern era of impulse buying, the transparent package lets shoppers see the product's value—persuades them to buy.

Consider the product. Different products require special types of protection. The packaging material should be tailored to suit a product's individual needs.

Consider the cost. It's important today to use a packaging material that not only attracts and protects but also does the job economically ... and operates efficiently on automatic packaging machinery.

Our field representatives, and the converters of Cellophane, will be glad to assist you in developing effective packaging that incorporates these three basic points. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.

DuPont
Cellophane

Shows what it Protects—Protects
what it Shows ... at Low Cost



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

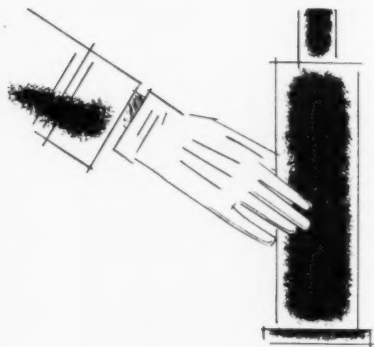


Christmas Joy

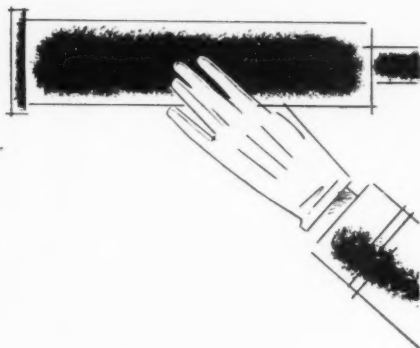
CHRISTMAS PEACE

HAZEL-ATLAS GLASS COMPANY, WHEELING, W. VA.





**no matter how
you look at it**



**a
Wallace Set-Up Box
is a
Set-Up Box at its Best**



Wallace Paper Box Corp.

609 WEST 51st STREET
NEW YORK 19, NEW YORK
MILLTOWN, NEW JERSEY

MODERN PACKAGING

<p>Can't Open It — I Won't Buy It Again</p> 	<p>RECORD</p>  <p>Mm Good ... Tastes Good But Who's going to buy that jar?</p>	<p>If They Don't Stop This Evaporation I Won't Buy It Again.</p> 	 <p>Phew — It's Not Fresh! I Won't Buy It Again.</p>	<p>Moisture Got In. Hard As A Rock ... Won't Buy It Again.</p> 	 <p>One Leaking Bottle Has Ruined Cases Full of Merchandise</p>
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JUST ANY CAP WON'T DO



Just any screw cap won't give your product any selling advantage whatever.

Screw caps that seal and sell must be engineered for your product as a *special* part of the package designing job by a manufacturer whose only interest is the *closure*.

That is why Ferdinand Gutmann & Co. developed, in addition to its standard line of screw caps, many types of specialty closures that *protect* your product best—please your customer most.

Most widely used among these specialties is Filma*-Seal, the economical inner seal which is applied with the Gutmann cap... stays on *after* the cap is removed.

Filma*-Seal gives your glass packed product extra sales appeal and extra protection against evaporation, moisture ingress, air ingress, tampering or sampling. We have already developed 28 variants of Filma*-Seal to solve specific problems for manufacturers who package in glass. We will develop the 29th variant for you... if you need it... and see it through your plant whether you package thousands or millions.

For closures that sell . . . CALL A

Filma*-Seal

CAP AND SEAL APPLIED AS ONE
*Reg. U.S. Pat. Off. and abroad



**CLOSURE
MANUFACTURER . . .
Call
Gutmann**

FERDINAND Gutmann & COMPANY
SINCE 1890

3601 14th AVENUE • BROOKLYN, N. Y.

**PROTECTED
against
EVAPORATION
with**



Filma*-Seal
TYPE TA-4 CLOSURES



Artist—Ben Cunningham, native of Nevada

NEVADA—annual purchases: \$170 million—mostly packaged.

CONTAINER CORPORATION OF AMERICA



Resolved:

for a

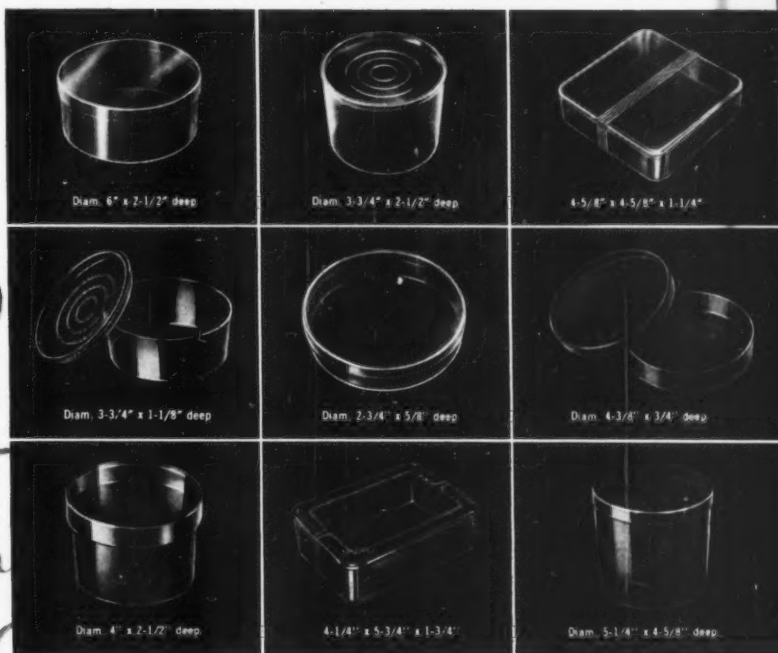
Gleaming
NEW
YEAR

THE sparkling appeal of crystal-clear Tri-State Rigid Plastic Boxes will make your sales picture brighter in the year to come! Whether you manufacture food—sweets—staples—fashion items—luxury articles—or perishables of any kind, packaging in Rigid Plastic Boxes will provide the appeal that builds sales for you. And handsome, reusable bonus boxes will carry resales to a new high, too.

Add to greater unit volume, the low unit cost for packaging operations. Our stock shapes and sizes are now saving packaging costs for a number of manufacturers. Or we'll mold to fit your own package specifications.

Put your product in a gleaming individual Plastic showcase now. Provide sparkling freshness, complete protection, and new point-of-sale incentive. Write or call any of our offices for full information.

Package in **TRI-STATE** rigid plastic



The best Rigid Plastic Boxes are Injection Molded by Tri-State.



TRI-STATE PLASTIC MOLDING CO.

HENDERSON, KENTUCKY

New York Office: 12 E. 41st Street—Murray Hill 3-6572

Chicago: 176 W. Adams Street

**FROM WHISKEY TO WEINERS
...FROM CANDY TO CORSETS**

Dissimilar as all get out—but informative, too. Because each of these 18 products illustrates one or more of the many functions top quality lithography performs so well in the packaging sphere. We're proud of the richness and fidelity of these lithographic impressions. We take pride in our association with these brand names.

Keep in mind, too, that we are well equipped to handle the creative part of your packaging or label requirements. If necessary, our Marketing Division will make a field study of your product (and its competition) at the retail level. Surveys of this sort have proved mighty helpful in the past. Either way, though, our skilled designers have what it takes to create an unusually effective package or label . . . or to modernize or improve your present one. We have done it for others—why not let us do it for you?

CONSOLIDATED Lithographing Corporation
1013 Grand Street, Brooklyn 6, N. Y. EVERgreen 8-6700



NO INCREASE IN PRICE ON NEW **ZIPAK** DISPENSER AND BLADES

Two months after introducing the ZIPAK dispenser, sales of Pal blades had rocketed to three times their normal dollar volume—and were still going up. Behind this sales record is an interesting story of package design and pricing.

Previously, Pal blades had been wrapped individually in paper. In the new ZIPAK, paper wrapping is eliminated. Blades are dispensed clean, sharp and ready to use. Nothing touches the edge of the blades from the time they leave the factory until they are actually used.

The designers of the new case of Koppers Polystyrene performed a "near" miracle. They came up with a completely new package with more sales appeal and more customer benefits—but the price of the blades plus dispenser stayed the same!

The low cost and fast molding cycle of Koppers Polystyrene played an important part in keeping the cost of the ZIPAK low. Millions of plastic dispensers were molded quickly at a unit cost comparable to previous packaging costs.

Customers were quick to spot the added value and that's the story of another sales success.

KOPPERS COMPANY, INC.
Chemical Division Pittsburgh 19, Pa.
Regional offices: New York, Boston, Chicago and San Francisco



Koppers *Perfected* Plastics

ZIP and you have a new blade ready for shaving from the new PAL ZIPAK. Cover and base designed by Engineering Department of Pal Blade Co., Inc., with the cooperation of Perry Plastics—molded from Koppers Polystyrene by Perry Plastics, Erie, Pa.

WHY KOPPERS POLYSTYRENE WAS CHOSEN

- Low cost per pound.
- More pieces per hour due to fast molding cycle.
- More pieces per pound because of light weight.
- Unlimited color selection.

Koppers Company, Inc.
Chemical Division, Dept. MPG 12
Pittsburgh 19, Pa.
Please send me data on Koppers Perfected Plastics.

Name _____ Position _____
Company _____
Address _____
City _____ State _____

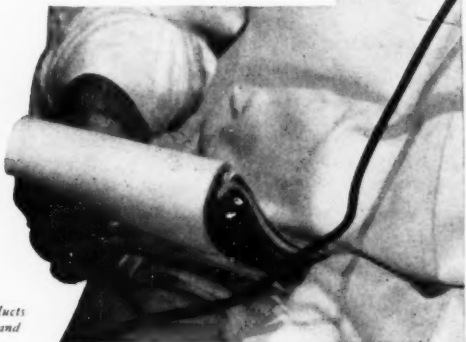
*POLYSTYRENE *ETHYL CELLULOSE *CELLULOSE ACETATE

"Excello Brand? ..sure we have them"

You can bet no wide-awake grocer is going to pass up stocking Excello Brand Olives.* Just one look is enough to tell you they're a popular item. These are choice olives, imported directly from Seville, Spain, and hand packed. They have the eye appeal and taste appeal that make them the olives that are asked for by name time after time.



*Packed by
Excello Food Products
Baltimore, Maryland



That's the way it is with Crown Closures, too. Most packers know that they have exclusive features that really contribute to better sealing . . . features like the patented Deep Hook Thread that grips under the glass thread of the container and seals more securely without binding or wedging. Crown liners are also something special. Many have been developed in Crown's own laboratories to meet individual sealing requirements.

If you're looking for the tops in closure satisfaction, do like so many other packers do . . . bring your sealing problems to sealing headquarters . . . come to Crown. Crown Cork & Seal Company, Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

Approved by Millions of Housewives

At the Cannery Convention in Atlantic City, Crown will be at Booth A-13 Convention Hall, January 27-30.

**Ever
since
the
Gibson
Girl**



...quality products have sold in fine
Rowell set-up boxes.



...and today, just as 50 years ago, the fresh,
clean-cut line and expert craftsmanship and
color printing of a Rowell container provides
the eye compelling, desire creating combination
that leads to sales and repeat sales.



E. N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes
BATAVIA, N. Y.

*For so little - the
arresting appeal of
adds so much to a Display's sales-effectiveness!*

CLAREMONT
Flock



Claremont Flock is a field-proven versatile merchandising medium!

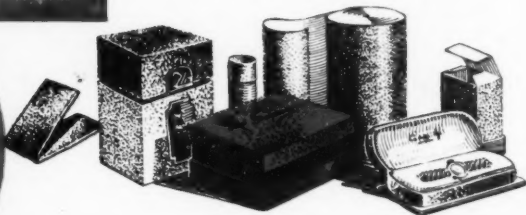
As a lining or background it is colorful, rich; lies flawlessly flat; builds itself right into corners; shows no seams or gaps and won't pucker! It can be sprayed in place, creates the allure of velvet - at a fraction of the cost you ordinarily associate with luxurious fabrics. Furthermore, it eliminates many laborious hand operations!

Your choice of more than a score of brilliant colors and tints, enables your selection to be in complete accord and harmony with your plans.

The display case shown to the left utilizes the quiet beauty of midnight-blue Claremont Flock to surround and enhance an on-view, nested arrangement of cigarette lighters. The background of the upper half section of the case, reserved for cartoned stock, is also flock-surfaced!

Design ingenuity alone limits one's range of sales stirring effects. Complete details, color cards, samples and names of dependable flock-fabricating sources available upon request. Write today!

Display Case
R.S.R. Cigarette Lighters
courtesy of
Coron Corp., Bridge
CLAREMONT
WASTE MANUFACTURING
COMPANY
CLAREMONT, N. H.



CLAREMONT FLOCK...the Plush that Sells!

**DON'T GAMBLE
WITH PAPER**



... *With* **PATAPAR** *you*
have 179 chances
to win

When you're looking for a paper to do a special job, don't take chances on getting a sheet that won't exactly meet your requirements. Call on Patapar Vegetable Parchment. This unique, wet-strength, grease-resisting paper is available to you in 179 different types or variations.

That puts the chances at 179 to 1 that Patapar is just what you're looking for.

How PATAPAR can help you

Butter wrappers • Fish wrappers
Ham boiler liners
Deep freeze wraps
Cheese wrappers • Can liners
Vegetable wraps
Bacon wrappers
Milk and cream can gaskets
Oleomargarine wrappers

These are just a few typical uses of Patapar. It is furnished plain or printed with brand names and colorful designs.



Patapar Keymark,
nationally advertised
symbol of
wrapper protection

Suppose you need a paper that will prevent grease "crawling." Or a paper that is air tight. Or one that permits "breathing." There's a type of Patapar for each of these needs. Other types meet varying requirements of wet-strength, grease-proofness, moisture vapor resistance, translucency, pliability, thickness and other qualities.

Tell us *your* problem. Let us help you solve it with one of the 179 types of Patapar.

Patapar
HI-WET-STRENGTH,
GREASE-RESISTING PARCHMENT

PATERSON PARCHMENT PAPER COMPANY • BRISTOL, PENNSYLVANIA

Headquarters for Vegetable Parchment since 1885

West Coast Plant: 340 Bryant Street, San Francisco 7, California

Sales Offices: 122 East 42nd Street, New York 17, N. Y. • 111 West Washington St., Chicago 2, Ill.

Get the Facts about LITHOGRAPHED CANS

CANS THAT SELL...
CANS THAT PROTECT...
CANS THAT BUILD
Repeat Business

FOR almost fifty years,
Heekin experts in package
design have helped thou-
sands of manufacturers who
send their merchandise to
market in a metal can. Today,
with super markets growing,
impulse buying demands
more attention be given to
appearance and styling. May
we discuss this with you?

HEEKIN

*Beautifully
Lithographed*

CANS

THE HEEKIN CAN CO. CINCINNATI 2, OHIO



1899-1949

Forsman

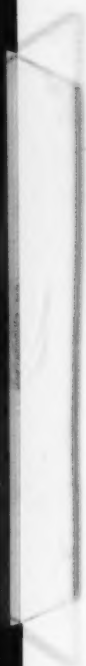
The year of 1949 is the Fiftieth Anniversary of the C. H. Forsman Co. Since all things are relative, this length of time can mean a great many things.

To us, in our fifty years of business, the relationship with our clients has been most pleasant. For this we thank our many friends who have contributed so much to our progress.

It is our aim to continue the improvement of the quality of color printing through various inventive methods that our suppliers have made available to us and for this we thank them for their cooperation.

We thank our employees whose efforts have been a major contribution to the well-being of our company. Their loyalty has been the greatest single factor in our fifty-years in business.

This signature, *Forsman*, is the original handwriting of the founder to whom we pay tribute.



"Just as the doctor ordered"...



better protection for your product—
in attractive, convenient **WIRZ** Tubes

To have your product reach your consumer "just as the Doctor ordered" is important when it's an ethical preparation like *Boroleum*.

Protection of contents, therefore, has always been high on the list of container specifications of Sinclair Pharmacal Company, Inc., with whom we have been privileged to cooperate for a great many years on *Boroleum*.

Wirz Tubes are excellent containers for a wide variety of products—cosmetics, lubricants and other industrial and household products. They assure the right degree of protection for your product. Sturdy yet flexible, Wirz Tubes take decoration handsomely and can be equipped with applicator tips for greater convenience in use. If you have a packaging problem, write or call our nearest representative for recommendations.

New York 17, N.Y.
50 E. 42nd St.

Chicago 4, Ill.
80 E. Jackson Blvd.

Memphis 2, Tenn.
Wurzberg Bros.
1709 W. 8th St., Los Angeles 14, Calif.

Havana, Cuba
Roberto Ortiz Planos

Export Division — 735 Drexel Building, Philadelphia 6, Pa.



FOURTH & COLE STS., CHESTER, PA.

Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westlite Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression and Injection Molding



Another Example

OF GARDNER PACKAGING INGENUITY...

Miniature Paperboard Tobacco Barns show how a back-shelf item can win up-front display

You can probably think of an arm-long list of products (all in traditional, unimaginative packages) that wind up on back shelves and in dark corners—just as tobacco seed always did.

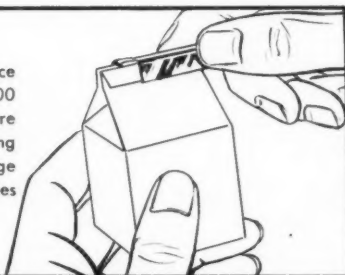
McNair's Yield-Tested Seed Company thought something could be done about it. So did Gardner. And Gardner found the answer, right in the McNair slogan—"The bargain is in the barn." Gardner designers came up with tiny "tobacco barn" packages for the seed. A larger paperboard barn became an eye-catching display piece—and a container for a reserve supply of seed packages.

These intriguing tobacco barns have won special island and top-of-the-counter display in seed stores—and the tiny barns are popular souvenirs of the Flue Cured Tobacco Belt. Better yet, more growers have discovered the "bargain in the barn," and McNair's has discovered extra sales!

Maybe we can add a Sales "Extra" to YOUR package

If you have a product that needs an extra point-of-sales push, a product that's hard to package, or a new idea that needs a new packaging idea, get in touch with Gardner. We'll be glad to tackle it. No obligation, of course.

Hard to believe, but . . . each ounce of tobacco seed contains 300,000 seeds—the amount used to secure plants for 1 acre. For easy handling of these tiny seeds, the metal ridge roll on the roof of the barn slides to permit pouring.



MAKE MORE EYES REACH FOR YOUR PRODUCT IN CARTONS OF COATED LITHWITE*

More growers reach for McNair's tobacco seed because of the extra eye-appeal of Coated Lithwite, the quality claycoated board that's whiter . . . brighter. Colors hold up brilliantly on Coated Lithwite . . . pictures reproduce with true-to-life realism. Rub-resistant. Fade-resistant. Both cartons of Coated Lithwite and Coated Lithwite Paperboard are available.

THE GARDNER BOARD AND CARTON CO.

Formerly The Gardner-Richardson Co.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

*Reg. U. S. Pat. Off.

Sales Offices in Boston, Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis

CHECK-LIST FOR DRUG, PROPRIETARY AND CHEMICAL MANUFACTURERS! Continental makes a wide and complete assortment of cans for everything from pills to powders. If your packaging problem is one of size, shape, type of closure, special protection or merchandising appeal, chances are we have just the container you need.



CHECK with CONTINENTAL

IT COSTS NOTHING TO TALK THINGS OVER AND . . .

We would like to see if, because of our size and flexibility, we could assure you of a more dependable supply . . . Check?

. . . or suggest improvements for your lithographed designs . . . Check?

. . . or give you better service . . . Check?

. . . or help you overcome a research or product development problem . . . Check?

So, why not "Check with Continental" today? . . . Check?

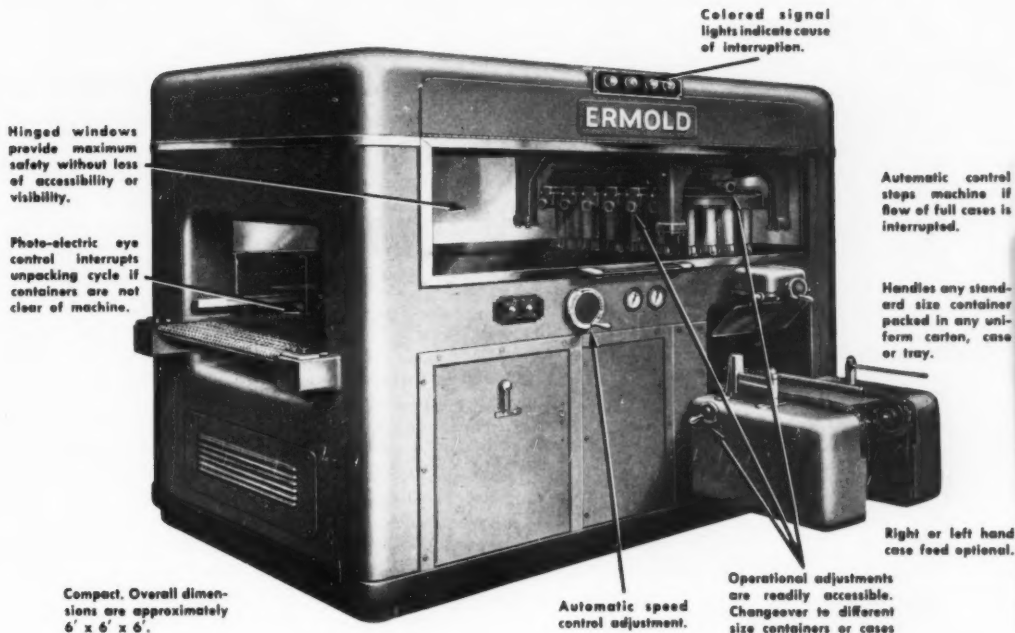
*You can't beat Continental as
a dependable source of supply*



CONTINENTAL  CAN COMPANY
100 EAST 42nd STREET, NEW YORK 17, N. Y.

HERE IT IS!

ERMOLD **AUTOMATIC** UNPACKER



FULLY AUTOMATIC! That's the keynote of the new Ermold Unpacker. It automatically removes standard containers from cartons, deep or shallow cases or trays. It takes filled or partially filled cases and discharges the containers on a continuous conveyor while discharging the empty cases on either right or left side.

Fully automatic safety devices not only protect employees, but also prevent damage to the machine as well as to containers and cases. The Unpacker also automatically rejects odd size or badly damaged cases, under or overlenght or broken bottles.

Vitaly important, too, the output of the Ermold Automatic Unpacker is

more than ample to feed the largest washers operating at full capacity.

For details on the new Ermold *Automatic* Unpacker as well as for a consultation with an Ermold representative on how this machine can be integrated into your production line, fill out the coupon and mail it today.

EDWARD **ERMOLD** COMPANY

652 HUDSON STREET, NEW YORK 14, N.Y.
FOUNDED 1880 • INCORPORATED 1911

OFFICES: BOSTON • CHICAGO • CLEVELAND • LOS ANGELES • MONTREAL
ST. LOUIS • SAN FRANCISCO • TORONTO • MEXICO • CUBA • ENGLAND

Famed for Labeling Leadership for 69 years.

EDWARD ERMOLD COMPANY
652 Hudson Street, New York 14, New York.

Please have a representative call to discuss how the new Ermold Automatic Unpacker can simplify our unpacking procedures.

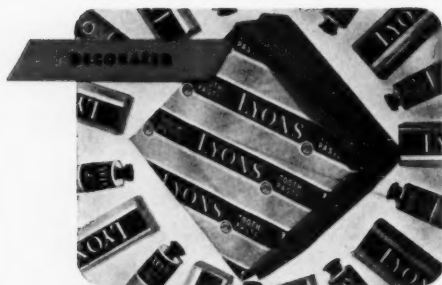
NAME _____

COMPANY _____

ADDRESS _____

POSITION _____

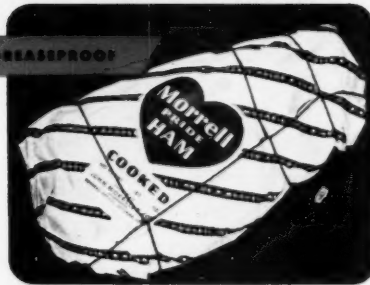
EE 138



DECORATED



WAXED-VAPOR PROOF



GREASEPROOF



SPECIALTY BAGS



REINFORCED STRENGTH



WAYS TO BETTER PACKAGING ...FROM ONE SINGLE SOURCE!

Thilco wide-range
versatility provides the protective
papers your products require

Freshness, flavor, sanitation, pliability, strength, and eye-appealing decoration are some of the functional qualities available, either singly or in combination, when you fulfill your demands from the versatile Thilco line. You save, too — time and money, handling and freight, because this complete packaging service comes to you from *one single production source*, a decided advantage to you! The Thilco line includes asphalt waterproof papers, waxed and waxed laminated papers, glassines, greaseproofs, specialty krafts, box papers — and custom bags of every description. Most of these papers can be specially processed and converted into combinations to meet any specific packaging requirement. Consult with us on your problems now. Our "paper engineers" will be glad to work with you — no obligation, of course.

Thilco
Functional Papers

THILMANY PAPER CO. • KAUKAUNA • WIS

packaging



Mamspec

**Moore and Munger Specifications
means**

perfection in petroleum wax

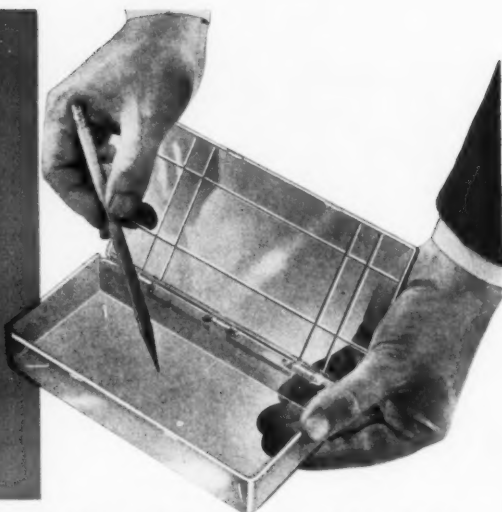
for every packaging need



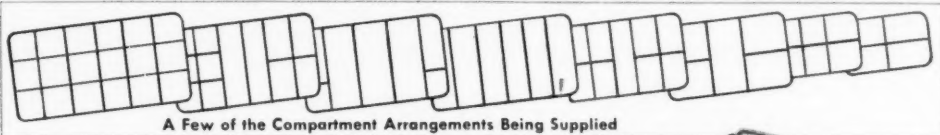
MOORE & MUNGER—33 Rector Street—New York 6
Marketers of Petroleum Wax for Over Half a Century

VLCHKEK

Plastic Boxes to Fit Your Products.....



YOUR CHOICE OF **548** COMPARTMENT ARRANGEMENTS IN 8 STANDARD SIZES



A Few of the Compartment Arrangements Being Supplied

These beautiful, crystal-clear plastic boxes are supplied in 8 standard sizes, permitting 548 different compartment arrangements.

Thus you can have unusual flexibility in boxes to fit your products, yet—with stock-box economy.

In addition, specials—involving variations in color, shape, interior design, hinge design, etc.—can be engineered to meet specific needs.

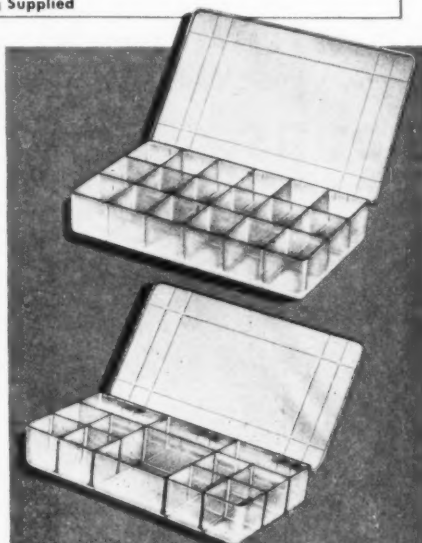
Hundreds of companies are selling more products by serving their customers better in the use of products packaged in these plastic boxes. Dealers give these packages preferential display space. The "after uses" too delight customers and create sales.

Write for prices, telling us the kind of merchandise to be carried so that we can write you fully.

PLASTICS DIVISION

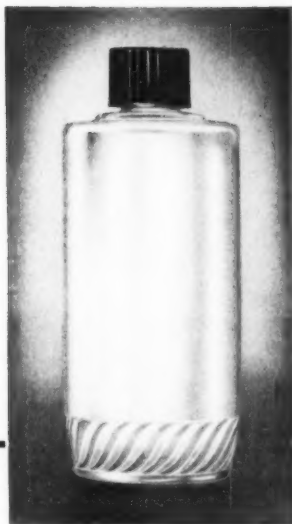
The **VLCHKEK**
TOOL COMPANY

3001 East 87th St. • Cleveland 4, Ohio



STANDARD SIZES

10 3/4" — 6 1/2" — 1 3/4"	7" — 2" — 1"
8 1/4" — 4 1/4" — 1 1/4"	6 1/4" — 4" — 1 1/4"
7 7/8" — 4 1/2" — 1 1/2"	4 1/2" — 2 3/4" — 1"
7" — 3 1/2" — 1 1/2"	4 3/4" (dia.) — 3/4"



This flint glass, machine made bottle is identified as No. 434 in the Carr-Lowrey line.

Its graceful contours and restrained decorative treatment recommend it as a suitable container for better quality perfumes and cosmetics.

A Carr-Lowrey representative will give you full information about this number or suggest other containers from our wide assortment of stock designs.

**CARR-LOWREY
GLASS CO.**



LOW-COST PLASTIC PACKAGES

ENGINEERED FOR HIGH-SPEED PRODUCTION

GIFT PACKAGE . . . with Amos all-plastic hinge

Amos redesign specified an ingenious, *specially engineered* plastic hinge to replace one of metal. This lowered packaging cost, ended critical supply problems, *jumped* production rates to 2,000 per hour . . . and made possible an earlier delivery promise.

SMART COMBINATION . . . of product and package

The smooth, beautiful appearance of this ladies' razor proves Amos ability to mass produce plastic components for *precision* assembly with metal parts. This calls for *meticulous* skill in engineering . . . and also *close* cooperation to devise easy, rapid assembly methods and schedule deliveries for production requirements.

Try AMOS next time for product development experience that guarantees best results at reduced costs . . . and volume production with strict quality control.



AMOS MOLDED PLASTICS • Edinburg, Indiana

Division of Amos-Thompson Corporation

Write for the new 52-page Amos Sales Catalog. Full color illustrations show why Amos design and engineering produces best results . . . and how Amos facilities are organized to serve you best.



Seasoned personnel teamed up with
selective Carton Buyers for 42 years to produce the
finest in folding cartons.



CHICAGO CARTON COMPANY

4200 SOUTH CRAWFORD AVENUE • CHICAGO 32, ILLINOIS

FOLDING CARTONS • PLAIN • PRINTED • LAMINATED • PARAFFINED

DECEMBER 1949

67

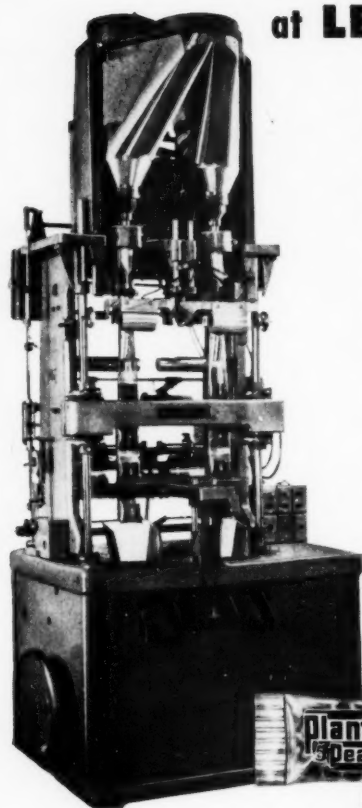
TRANSWRAP

THIS READY-MADE
BAG, HAND-FILLED
Approximate Cost
Labor and Materials
\$7.00 per thousand



THIS AUTOMATIC
TRANSWRAP PACKAGE
Approximate Cost
Labor and Materials
\$3.29 per thousand

AUTOMATICALLY produces a better-selling package at LESS than HALF THE COST



TRANSWRAP—industry's most practical and efficient packaging machine—forms, fills, seals and delivers a better-looking, better-selling package for your product... completely automatically.

In cost, the *finished filled* TRANSWRAP units actually run less than half the price of ready-made *empty* bags for manual processing. And, because a single operator can handle a whole battery of TRANSWRAP machines, wage savings are phenomenal.

TRANSWRAP is equally efficient for powders, solids, tablets and even liquids. Standard packaging materials which may be used include cellophane, Pliofilm, glassine, roll foil or other suitable heat-sealing materials. Package capacities range up to 80 cubic inches in volume and often may exceed one pound in weight. Custom-engineered adaptations are possible to meet your individual requirements with maximum efficiency.

Model "B" Transwrap with auger feed. Also adaptable to Volumetric or liquid feed. Produces 40 to 75 pkgs. per minute.

Also Available—
Model "A" Transwrap
For small and unit packages.
(2 3/8" x 6" Max.) Speeds to
150 pkg./min.

WRITE FOR FREE ILLUSTRATED BROCHURE

Manufactured and Sold by
**TRANSPARENT WRAP
MACHINE CORPORATION**

Route 17 and Henry Street, Hasbrouck Heights, New Jersey

REPRESENTATIVES IN PRINCIPAL CITIES OF THE U. S.





Sentiment Pays Big Dividends!

YES, the American public spends nearly \$2 each on greeting cards every year. It's a 300 million dollar business which with stationery and allied products adds up to 3,000 plants producing 8 billion dollars in sales.

The greeting card and stationery manufacturers report a unanimous preference for *set-up boxes* — using 100 million annually.

Versatile characteristics ranging from product protection to

greater sales appeal are the reason for the preference.

Why not ask your nearest set-up box manufacturer

what set-ups can do for your product.



NATIONAL PAPER BOX MANUFACTURERS

Association

AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia, Penn.

**WHEN YOU *Must*
REDUCE COSTS — USE
STANDARD-KNAPP
PACKAGING
MACHINES**

WHEN YOU'VE got to buckle down, when you've got to make every minute and every motion on your production line pay off, you can't afford ordinarily efficient equipment — you need Standard-Knapp packaging machinery.

Whether you require just one machine, or a complete new packaging line . . . whether you use cans, bottles, or cartons . . . Standard-Knapp engineering and design experience assure cost-reducing efficiency for every packaging operation.

UNLOADERS



Remove glass containers from carton and place them in single file — or feed them into soakers and washers.

WASHERS



Provide fast, continuous delivery of washed new glass containers, without thermal shock.

UNSCRAMBLERS



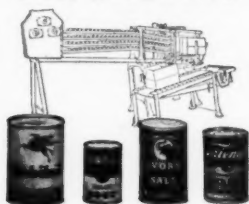
Rapidly arrange cans dumped from crates in single file at operating economies that quickly pay for machines.

LABELERS



Apply labels with speed and precision, to afford good package appearance at minimum cost.

CAN PACKERS



Place cans quickly and gently into shipping cases in a smooth, cost-saving operating sequence.

BOTTLE PACKERS



Automatically pack bottles into trays or cases, and pay for themselves in efficiency.

CARTON PACKERS



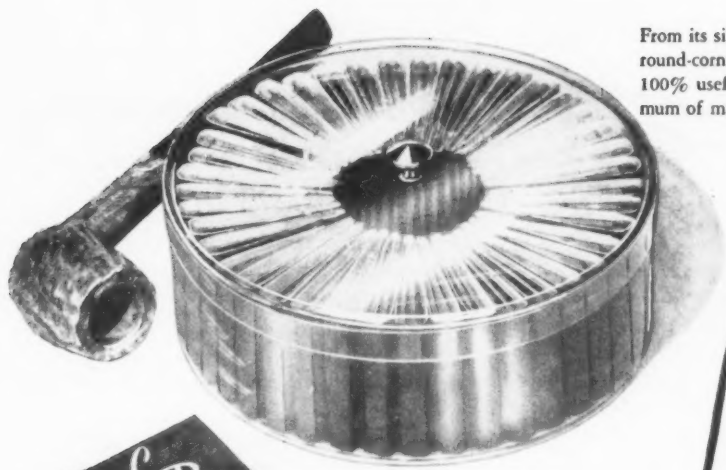
Automatically pack cartons of all sizes and shapes into display or shipping cases with maximum speed and economy.

GLUERS AND SEALERS



Apply glue to the carton or shipping case, not to the contents; insure strength with neat, economical sealing.





From its silver button on top to its welded round-corner base, the final Visi-Tainer is 100% useful. Perfect display with a minimum of material.

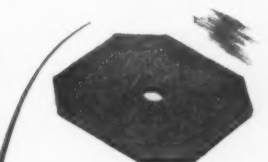


A Match for Merchandising!

A lot of common, ordinary book matches are bought by the 20 million wives in this country — and there isn't much profit in the usual competitive box of 50. But if you like to sell matches and make a profit, you consult OLD DOMINION package designers and merchandising experts.

Here's what happens. They design a new type Visi-Tainer, a fire-proof and good looking set-up box and a handy corrugated mailer. Result — more matches sold, more profits made and a lot of wives have a beautiful acetate box for re-use at home.

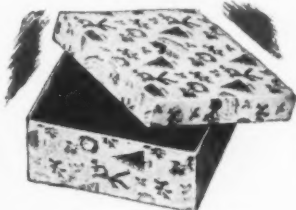
Consult Old Dominion today and write for Visi-Tainer Folder #8.



The corrugated top and button protector.



Telescopic cover
Visitainer — all welded.



Flame-proof set-up box
with decorative wrap.



The one-piece Old Dominion
corrugated mailer.



PLANTS LOCATED THROUGHOUT THE SOUTH

Box Company Inc.

CHARLOTTE, N. CAROLINA

THE SOUTHERN BOX MAKER WITH A NATIONAL REPUTATION

DECEMBER 1949

71



Handsome because Handsome Does

When Milady buys her cigarettes she scarcely sees the Aluminum Foil inner wrap—she just "knows it's there." She's known for many years that all leading brands are foil-protected—so she's confident of quality . . . confident that original fineness is protected until she breaks the seal.

Besides such *inherent* "Beauty at Work" in fine tobaccos, Cochran's Pure Aluminum Foil has a myriad of other packaging uses. Some are for shelf appeal—beauty alone. Some are for protection only. Many combine both—so that the beautiful package is also the best protection for the quality of the contents.

Maybe your product needs Cochran's "Beauty at Work". We will be happy to refer your inquiries to qualified package manufacturers for a comprehensive study of your requirements.



Cochran
COCHRAN FOIL COMPANY
INCORPORATED
LOUISVILLE 10, KENTUCKY

SALES OFFICES • 3318 East Lake Street • 632 Fisher Building • 500 Fifth Avenue • 238 West Wisconsin Ave. • Hippodrome Bldg.
Minneapolis 6, Minn. • Detroit 2, Michigan • New York 18, New York • Milwaukee 3, Wisconsin • Cleveland 15, Ohio

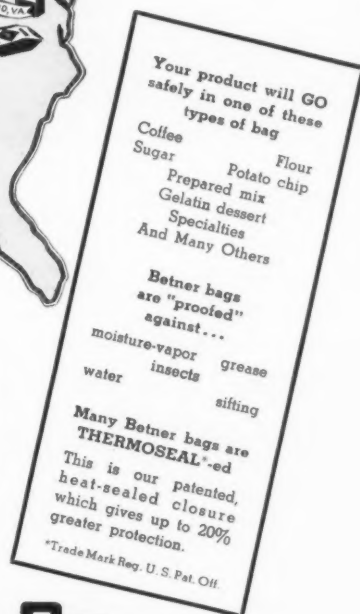
TO EMPHASIZE THAT
5 Betner plants in
5 strategically-located cities
give flexibility and economy
to Betner's complete food-packaging
service



What foods do you process? Where is your plant? And what's your problem? We have helped solve packaging problems for scores of different types of foods . . . with many variances in market, weather and transportation conditions.

Satisfied Betner customers, coast to coast, will tell you *Betner Bags are Better Bags*. We'd like to prove that to you.

Remember, ours is a *complete* bag service—from design to manufacture to actual packaging. Why not give us a call?



Benj C Betner Co **DEVON, PA.**

CAMP BETNER CORP., Richmond, Va.; BENJ. C. BETNER CO. of WISCONSIN, Appleton, Wisconsin; BENJ. C. BETNER CO., Paris, Texas; BENJ. C. BETNER CO. of CALIFORNIA, Los Angeles, California.; SOUTHERN PACKAGING CORPORATION, High Point, N. C.; Affiliate of Benj. C. Betner Co.

A complete bag service—from idea to finished bag to machinery for closing coffee bags and filling and closing liner bags for cartons.



NASHUA'S HEAT SEAL PAPER fills a dual purpose, lowers packaging costs

THE single-use units in the distinctive new Shulton packages (shown above) are made of paperboard tubing with a decorative paper wrap.

High speed production required a closure that could be attached easily, that would be neat, decorative, and low in cost.

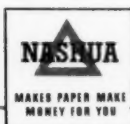
Nashua's IMAC-PA met all of these requirements and provided a positive closure that elimi-



TUBE CLOSURES
END LABEL, EACH END

nates the need for the customary sleeve-type package.

If you have a labeling problem requiring precise registration, fast initial tack, permanent adherence to paper, plastics, wet or dry glass, wood or metal, write Nashua's Sales Research Department.



NASHUA GUMMED AND COATED PAPER COMPANY NASHUA, NEW HAMPSHIRE

NASHUA HEAT SEAL PAPER DISTRIBUTORS

ALBANY, N. Y.
Hudson Valley Paper Company
ALBUQUERQUE, N. M.
Carpenter Paper Company
ATLANTA, GA.
Whitaker Paper Company
AUGUSTA, ME.
Carter, Rice & Company
AUSTIN, TEX.
Carpenter Paper Company
BALTIMORE, MD.
Whitaker Paper Company
BILLINGS, MONT.
Carpenter Paper Company
BOSTON, MASS.
Carter, Rice & Company
BUFFALO, N. Y.
The Alling & Cory Company
BUTTE, MONT.
Carpenter Paper Company
CLEVELAND, OHIO
The Alling & Cory Company
CHICAGO, ILL.
Bradner Smith & Company
Dwight Brothers Paper Company
Carpenter Paper Company

CINCINNATI, OHIO
Whitaker Paper Company
DALLAS, TEX.
Carpenter Paper Company
DENVER, COLO.
Carpenter Paper Company
DES MOINES, IOWA
Carpenter Paper Company
DETROIT, MICH.
Whitaker Paper Company
EL PASO, TEX.
Carpenter Paper Company
FARGO, N. D.
The John Leslie Paper Company
FORT WORTH, TEX.
Carpenter Paper Company
GRAND ISLAND, NEB.
Carpenter Paper Company
GRAND RAPIDS, MICH.
Carpenter Paper Company
GREAT FALLS, MONT.
Carpenter Paper Company
The John Leslie Paper Company
HARLINGEN, TEX.
Carpenter Paper Company
HOUSTON, TEX.
Carpenter Paper Company

INDIANAPOLIS, IND.
Indiana Paper Company
KANSAS CITY, MO.
Carpenter Paper Company
LOS ANGELES, CALIF.
Carpenter Paper Company
LOUISVILLE, KY.
The Rowland Paper Company
LINCOLN, NEB.
Carpenter Paper Company
MILWAUKEE, WISC.
Bradner Smith & Company
MINNEAPOLIS, MINN.
Carpenter Paper Company
The John Leslie Paper Company
NEW HAVEN, CONN.
Bulkley, Dutton & Company
NEW YORK CITY, N. Y.
Bulkley, Dutton & Company
Harry Elish Paper Company
George W. Millar & Company
OGDEN, UTAH
Carpenter Paper Company

OKLAHOMA CITY, OKLA.
Carpenter Paper Company
OMAHA, NEBR.
Carpenter Paper Company
PHILADELPHIA, PA.
Rhodes Paper Company
D. L. Ward Company
PITTSBURGH, PA.
Whitaker Paper Company
PORTLAND, ORE.
West Coast Paper Company
PROVIDENCE, R. I.
Carter, Rice & Company
PIERCE, WASH.
Carpenter Paper Company
ROCHESTER, N. Y.
The Alling & Cory Company
ST. LOUIS, MO.
Acme Paper Company
ST. PAUL, MINN.
Carpenter Paper Company
The John Leslie Paper Company
SALT LAKE CITY, UTAH
Carpenter Paper Company
SAN ANTONIO, TEX.
Carpenter Paper Company

SAN FRANCISCO, CALIF.
Carpenter Paper Company
SEATTLE, WASH.
West Coast Paper Company
SIOUX CITY, IOWA
Carpenter Paper Company
SIOUX FALLS, S. D.
The John Leslie Paper Company
SPRINGFIELD, MASS.
Bulkley, Dutton & Company
SYRACUSE, N. Y.
Hubbo & Hastings Paper Company
TOPEKA, KANSAS
Carpenter Paper Company
WASHINGTON, D.C.
Whitaker Paper Company
WORCESTER, MASS.
Charles A. Evey Paper Company
EXPORT
MEXICO, CENTRAL AMERICA,
S. AMERICA, SO. AFRICA, and
the FAR EAST
American Paper Exports, Inc.,
New York City
UNITED KINGDOM, EUROPE,
NO. AFRICA and the NEAR EAST
Ignatius J. Super, 65 Ave. Niel,
Paris

Modern packaging



Effective use of displays

SCIENTIFIC METHODS OF DISTRIBUTION ARE TAKING THE GUESSWORK OUT
OF POINT-OF-SALE MATERIAL, DESTROYING THE OLD CHARGE OF 'WASTE'

American industry spends nearly \$500,000,000 a year* on point-of-sale materials and services. This is almost as much as is expended on any other single advertising medium with the exception of newspapers.

Self-service merchandising is increasing the demand for manufacturer-supplied, point-of-sale material, according to sales promotion managers for manufacturers of all lines of packaged goods—and also according to research studies in the food, drug, liquor and cosmetic fields—but it is also starting a revolution in the acceptance and use of such selling aids.

No longer can the head office dream up some dandy ideas for window cards, counter baskets, light-cord

hangers and easel cards, ship them out by the thousands to its salesmen and expect dealers to put them up.

Chain and variety store operation, modern store layouts, consumer buying habits are changing all that. Display pieces which were welcome in stores a generation ago are no longer acceptable today. Store operators are becoming more selective in demanding that display material be tailored to the needs of self-service arrangement. Emphasis now is on units that can be used with mass displays of related packaged merchandise.

In the last decade has come a growing consciousness of the need for improved research techniques to measure in advance the effectiveness and acceptance of point-of-

* Point-of-Purchase Institute estimate.

MASS DISPLAYS of this type are most widely accepted today in drug store merchandising. Display service organizations take your dummy packages and display cards, guarantee their installation in independent drug store windows for a service fee paid by the druggist and the manufacturer cooperatively. PHOTO COURTESY DRUG MERCHANDISING SERVICE.



sale material and for planned procedures to distribute the display material.

Believing that a discussion of such methods will be helpful when most companies are preparing their budgets and anticipating 1950 requirements, MODERN PACKAGING has gone to users of display materials in various industries, suppliers, chain operators, independents and display services to find out what is being done to increase the effectiveness of the millions of dollars spent for point-of-purchase advertising. There is plenty to tell. The old charge that a large percentage of display material is wasted seems no longer justified where modern methods are used.

General Foods technique

One of the outstanding contributions of the year is undoubtedly the program instituted by Parlin Lillard, sales promotion manager of General Foods Corp., aimed at eliminating much of the the guesswork in determining what kind of displays retailers want, in what quantities and where.

GF salesmen are now provided with IBM mark-sensing cards with which to make periodic check-ups of display material in the grocery stores they regularly contact (see illustration). On the cards is a list of nine types of display pieces for which the modern grocer has shown the greatest preference. With his marking pencil, the salesman indicates the types of displays that can or cannot be used in each store. He does not ask the grocer for this information, but makes his notation by observation of what types of displays are currently used in the store and where. When he fills in the card each salesman also enters his number, his district, the date, the type of store, etc. The cards are mailed back to the head office for sorting, punching and tabulating. From this statistical data each of the company's product groups receives a report on the types of material the salesmen say they can use. Since there is a card for each store, the breakdown of the tabulation tells how much to send each salesman and where to send it. It guides the promotion department in determining the quantity of material that should be ordered.

According to Mr. Lillard, the program was started last April, first with a presentation to management, followed by introduction to sales forces by way of a flip-flop presentation made by district representatives in about 200 territory meetings around the country. The first display material based on the studies was sent out during November. "It will probably be some time next year before we can judge the full effect of the program," he says, but he points out that it promises to reduce costs and eliminate some of the waste.

Preliminary studies, for example, indicated that some sales districts could use more material and different types than others, due to the type of store, size, geographic location, etc. Under most previous display distribution plans, the same number and types of pieces had been given to each salesman. With the IBM card tabulations, it is possible to send the right material

Nine types of displays

LOOK! Calumet's Special Offer!

GET YOURS NOW!

BEAUTIFUL 14KT. GOLD PLATED SPOON. 3 HANDY KITCHEN SCOOPS.

35¢ with the band from a 1lb. can (see band for premium you prefer).

For all your baking **CALUMET BAKING POWDER**

TUCK-IN CARD

Special Sale

SAVE MONEY

BUY THE 2 LB. CAN

The Sign of Good Coffee

★ BEST COFFEE YOU EVER TASTED! ★

POSTER

CASE BACKER

SERVE SOMETHING SPECIAL!

JELL-O WITH SLICED PEACHES

JELL-O Sliced Peaches

MAGAZINE AD REPRINT

AS ADVERTISED IN LIFE

5 NEW WAYS TO SPARK UP YOUR MEALS!

5 ways to the big "SPARK-UP-YOUR-MEALS" SALE

20 great centers look more exciting March 17th. Check up and spark up with Bonanza!

checked by General Foods punched cards



OVER-THE-WIRE POSTER



CARD AND RECIPE PAD

TYPE OF STORE	CHAINS	QUANTITIES
SHELF STRIPS (ABOUT 1/4 IN)		10
POSTERS (FOR WINDOWS OR WALL OR TOP OF MASS SELLING DISPLAY)		10
RECIPE CARD OR PREMIUM WITH PAD ATTACHED		10
TOPPER TO FIT THE SIZE OF THE PACKAGE		10
TUCK-IN CARDS FOR MASS DISPLAYS NOT LARGER THAN THREE PACKAGES WIDE		10
CASE - BACKER EXACT SIZE OF BACK OF CASE		10
OVER THE WIRE	DOUBLE POSTER 18x48	10
COUNTER BASKET - OR - COUNTER STAND		10
NATIONAL MAGAZINE ADVERTISING REPRINTS FOR WINDOW OR DISPLAY		10

* MAKE "YES" FOR EACH PIECE YOU CAN PLACE EFFECTIVELY. MARK "NO" FOR EACH PIECE YOU CANNOT PLACE EFFECTIVELY IN THIS STORE.

* BE SURE TO MARK CIRCLES "YES" OR "NO" FOR ALL MARKS. USE PENCILS SO THAT EACH PIECE IS ENCOUNTERED AND NOTED.

* HAVE YOU MADE 14 HEAVY BLACK LINES WITH A MECHANICAL MARK - SENSING PENCIL AND LEAD?

INVOICE ACCOUNTING SECTION - CONTROLLERS DEPT. - GENERAL FOODS SALES DIV.

IBM CODED CARDS, which are marked by General Foods' salesmen, predetermine which of the nine types of display pieces illustrated here the dealers want, in what quantities and in what stores.



PACKAGE TOPPER

SHELF STRIPS



COUNTER BASKET





PHOTO COURTESY EMMON-FREEMAN CO., INC.

RELATED MERCHANDISE displays such as this Nestlé Ever Ready cocoa "Happy Breakfast" promotion are of the "altruistic" type, which have wide acceptance in today's food markets.

in the right quantity directly to the spot where the salesman says it can be used. There will no longer be a scant supply in districts where larger quantities could be used and too much where less is required.

As a matter of fact, it seems evident that in any blind, uniform distribution of display material, the factor of under-supply at certain points is as much of a handicap to effective sales promotion as over-supply—although the latter has, in the past, generally been the one problem taken into consideration.

General Foods spent about a million dollars in point-of-sale advertising during the past year. "Under our new program," says Mr. Lillard, "we will be surer that these dollars are being spent more effectively because we know the material we are distributing will have been checked in the field to predetermine its acceptance by the grocer."

Each manufacturer, of course, has the opportunity to study his own point-of-sale requirements by similar or other methods, and many companies are continuously working to perfect the technique of such studies.

Nabisco analysis

At the Grocery Manufacturers' meeting last June, Sidney Johnson of National Biscuit Co. pointed out some of the results of a four-month analysis his company had made of point-of-sale material. A check was made of store operators, reported through branch managers.

"This 'road test,'" he says, "proved beyond the shadow of a doubt that the material most helpful in promoting sales of our brands is also helpful to the food-store operator in selling related foods. I think we should constantly remind ourselves that housewives buy

in terms of meals, but too often, as manufacturers, we sell in terms of brands.

"Top rating in our study was given to what we call our 'Profit-Maker' floor display stand, which is designed not only to display Nabisco crackers and cookies, but also related foods such as soup, cheese, preserves, peanut butter, tea, etc. Second most popular floor display stand was one designed to hold 50 or 60 packages of our merchandise for end, floor or aisle display in stores. Third in popularity was our Arthur Godfrey floor easel, tying in with the radio program. Next, operators rated display cards featuring Premium Crackers with peanut butter and with preserves and Nabisco Graham Crackers with preserves.

"In fact, we were highly encouraged to learn that 74% of the food-store operators questioned reported that related-item displays produced better sales results for our products than any other one type of display.

"Strangely, in our case, small-sized material proved least acceptable. Only 24% of our branch managers found shelf strips to be good point-of-sale material."

Preference study

Food manufacturers contemplating re-appraisals of point-of-sale requirements will find helpful a nationwide survey made in 1947 by *The Progressive Grocer* magazine covering the preferences and the extent to which common types of food-store display material will be used by independent grocery and combination stores. This study divides the various types of materials into 20 major classifications, clarifies terminology with illustrative material, and gives percentage preferences by types of stores, population, number of employees, geographic locations, etc.

According to this survey, 65% of all stores answering the questionnaire said they would use more display material in the future and 71% of the self-service stores said they would use more.

The study also indicated that self-service stores place emphasis on display materials that can be used directly with merchandise displays, have less interest in those materials that many manufacturers have been producing for hanging on light cords, to be worn on clerks' lapels and in other places entirely removed from the display of merchandise.

Pre-testing method

The Assn. of National Advertisers has just published a new method of testing displays suggested for impulse items, brands subject to switching because of no strong preference habits and products which have a high frequency of purchase (a minimum volume of 36 units per week).

This technique, developed by ANA vice president John F. Kurie, recommends the testing of two different displays in the same location in a pair of stores in comparable neighborhoods, similar in size and all other characteristics. Each display is given equal prominence in the two stores for a period of six to 12 weeks. Sales are compared daily and weekly. Since the method

PACKAGED LIQUOR STORE display in New York State permits only multiple brands of packages. Display cards must be unbranded. Display services supply unbranded tie-in display material—in this case, a motion unit of a Pilgrim Father swinging his arms back and forth.



PHOTO COURTESY LIQUOR MERCHANDISING CO.

pre-supposes all factors in both stores to be the same, differences in pulling power may be attributed to the relative effectiveness of the displays.

The method is recommended for its economy. Dummies may be used for the test display pieces, as was done for the Wildroot Co., thereby saving the cost of manufacture, since only the more effective display will be produced in quantity.

Chain operations

Large chain and variety operators have probably made a substantial contribution to the more effective use of manufacturer-supplied, point-of-sale material. Practically all of the large chains today, particularly in the retail drug field, operate their display programs on a schedule as fixed as a Broadway road show on tour. The head office determines what types of displays and dummy packages are to be used, where and when. They tell manufacturers what types of displays they can accept, and when accepted, guarantee that the displays will be used in windows or on counters for a specified length of time. Naturally this limits the manufacturer in the type of material he can send out, but it also assures him in advance of the chains' requirements and he can order quantities accordingly. There is definitely less chance for waste in this type of set-up, no matter what its other problems.

Soliciting dealer requests

A more difficult problem for the manufacturer of drug and toiletries is the distribution of displays to independent stores. His salesmen do not call on dealers

as frequently as those representing the food manufacturers and he therefore cannot always rely on the sales force to place the displays in the stores. Many firms issue regularly dealer sales promotion bulletins in which they describe the display material offered for each particular promotion. An enclosed return postcard asks the dealer to send back his request for it. The number of requests thus serves as a guide to how many displays will be required. The manufacturer also has reasonable assurance of acceptance, assuming that the dealer very likely will not bother to write back if he doesn't intend to use the material. A company which uses this method very successfully is Bristol-Myers. "One essential," said Frederick Bristol, in charge of this company's sales promotion, "is to reproduce illustrations of the material in the dealer bulletin in color. Chances for intriguing dealer interest are much greater if he sees color illustrations of the displays exactly as they are going to be."

In certain instances, display material can be featured in trade advertising with a request offer. Bristol-Myers is trying this out with a trade ad directed to barbers this month. The offer is a window card with plenty of sex appeal, which they feel will have wide acceptance. At least that has been their previous experience with barbers. By the number of requests, they can pretty well determine the required quantity of pieces.

The request method in dealer bulletins, broadsides and trade advertising is comparable to the catalogue which some firms offer to dealers, allowing them to pick out the types they can (Continued on page 178)

PHOTO COURTESY EINSON-FREEMAN CO., INC.

CHAIN-STORE BOOKINGS are scheduled in advance for these carded displays of tooth brushes, designed to tie up a minimum of dealer stock by a careful arrangement of a small number of brushes to give a mass effect.



Film-bagged



PHOTO COURTESY DENTON STORP

I. THIS IS THE TYPE of bag, almost unanimously favored by consumers in previous tests, that was used exclusively for film-bagged apples in 1948 Washington State shipments and for which special fillers were devised. Body of bag is Pliofilm, with a printed, glued-on paperboard header having three die-cut holes for finger grip.

The Washington State apple industry has its foot in the door of modern merchandising. At least, that is what research developments indicated last year when a pre-packaging research program with film-bagged apples mushroomed from a few test lots to more than 100 commercial shipments. All together, 70 cars of these film-packaged apples were shipped. Mesh-bagged apples and 2-lb. corrugated cartons were also shipped—making a total of 180 cars in consumer units.

The potential for pre-packaged apples from the Pacific Northwest is tremendous. The State of Washington ordinarily markets 30 to 40% of the fresh apples in the United States. Usually around 35,000 cars of apples are shipped—800 boxes of apples to the car. For an industry of such size to get into the pre-packaging field, changing many of its present practices to accommodate the new development, constitutes an imposing task. Research workers are systematically trying to work out different phases of the problems involved and give the shippers every assistance possible. The development staffs of converters and supply houses are beginning to concentrate on these problems as well, so that even

though the apple deal is a big one, definite headway is being made.

The film bag used throughout the 1948 program was the Pliofilm bag with a patented paperboard glued-on header which makes it easy for the apple packer to open and slip over the end of a filling chute and which also, by means of three die-cut holes in the header, provides a hand grip for the purchaser. After filling, the header is simply closed by stapling.

The film-bagged apples were new last year.† The first trial shipments were enthusiastically received. The demand immediately grew far beyond the ability of converters to supply bags. The response coming from consumers (who replied on United States Department of Agriculture questionnaire cards) was so unanimously in favor of the new package that the question could later be dropped from the questionnaire cards. In a way this is noteworthy, because only smaller sizes of fruit were shipped in the bags and consumers often have considered smaller apples to be substandard.

The pre-packaging research in the State of Washington was largely done under funds secured from the Marketing Research Division of the Production and Marketing Administration and placed under contract with the research department of the Washington State Apple Commission. The Commission handled all research done at the shipping point. Cost records were kept on the bagging operations by Washington State College, which was tied into the three-way research program by an agreement with the Marketing Research Division of P.M.A.

While the acceptance in the market was being carefully checked, research workers and packers were busily trying to solve some of the difficulties that beset the production end of the deal. Several of these developments are of general interest.

The first problem that confronted workers on bagging apples was that equipment at that time was either nonexistent or unsatisfactory. Such equipment as was available was not designed to handle fruit gently. Apples are more easily damaged than even tomatoes, making it absurd to try using equipment that had originally been designed for bagging potatoes and citrus. Then, too, the Washington State Apple Commission, through its research and handling-improvement program, had invested thousands of dollars in a campaign for improved handling of fruit and improper bagging techniques could have jeopardized that investment.

After trying unsuccessfully to convert existing bagging equipment to handle the film bag, efforts were spread out in two new directions. It was hoped that a

* Director of Research, Washington State Apple Commission, Yakima, Wash.

† See "Five Pounds in Film," MODERN PACKAGING, April, 1949, p. 162.

apples

WASHINGTON STATE RESEARCHERS IMPROVE THE MECHANICAL

FILLING OF THIS WIDELY ACCEPTED PACKAGE. By Earl W. Carlson*

scoop arrangement could be attached to the bagging head so that the fruit would be weighed in. The apples could then be tripped from the scoop into the bag, somewhat the same as the girl at the candy counter empties candy into the bag. Had this worked, it would have enabled the weighing mechanism to fill the scoop automatically so that the worker could empty apples into a bag by handling the bag only once—that is, she would not have to place the bag on the bag holder and then later take it off. This would have had the obvious advantage of saving labor. The weighing mechanism, however, was not sufficiently accurate for this type of operation. Research on weighing was then confined to the use of platform-type scales, which proved to be much more adaptable.

The other—and more successful—approach made to the problem was to design a long, inclined chute into which the apples rolled gently. The film bag is slipped over this chute and the chute tipped so that all the fruit slides into the bag in a body, eliminating the possibility of the apples bruising each other. After developing several models, in which the proper curves were gradually obtained, a workable mechanism was devised. This chute (Fig. 3) has a small gate at one end that releases automatically as the chute is tipped, allowing the fruit to flow from the chute.

Initially, the chute was used without scales and was made in two pieces for greater adjustability. Later a thumb-screw arrangement was used to lengthen and shorten the chute by retracting or extending the retaining gate at the lower end. By thus adjusting the chute, the approximate weight of apples was gauged by volume. Adjustment was necessary between some lots of apples and particularly when sizes were altered. Adjustments in the chute were also necessary when varieties were changed.

Four or five of these chutes were mounted along a table with a conveyor belt which fed fruit to the chutes (Fig. 2). It was learned that the conveyor belt should have a greater slope toward the chutes at the far end of the table as the volume of fruit decreases. By increasing the tilt of the table, the fruit was more inclined to roll toward the chute. In effect, this relieved some of the pressure from the first chute and evened out the work among the operators.

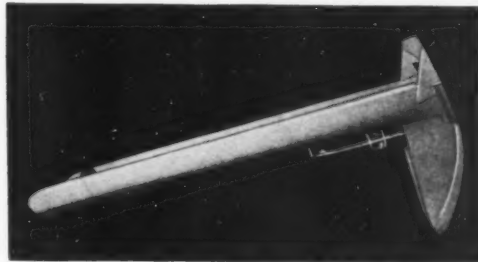
The problem of halting the flow of fruit into the chute while it was being emptied at first proved perplexing. There was also a split-second time lag between closing of the gate and tilting of the chute so that some fruit escaped to the floor, or fruit right on the end of the chute was tossed off the table. This problem was later overcome by putting a curved guard or flange on the



2. MECHANIZED BAGGING line enables girls to fill up to 15 film bags per minute. Special chutes (see Fig. 4) for filling by volume were designed so that when tilted for emptying, further access of apples from belt is blocked.



3. RETAINING GATE on chute as it appeared in this early model holds apples until chute is tilted, then automatically drops flat, permitting all apples to roll in as a body and thus reducing the possibility of bruising the fruit.



4. IMPROVED CHUTE has a block-off flange and overhead bridge at feeding end and a retaining gate that is adjustable up or down the length of the trough to regulate volume. Adjustment is made with turn-screw on underside of chute.

upper end of the chute. Thus, as the chute was tilted it automatically stopped the flow of fruit, as shown in Fig. 2. The Commission's research workers found that a small bridge over the top of the chute, as illustrated close-up in Fig. 4, prevented fruit from getting knocked to the floor. Any apples on the end of the chute would be forced back onto the feed table or into the chute.

On one bagging line, four different methods of weighing were checked. It was learned that considerable efficiency was lost when the wrong kind of scales were used. One split-gate type of metering gate was worked on, functioning from mercury magnetic switches, operated by a small magnet on the beam of the scales. While this device was not fully perfected before the season ended, girls worked at speeds of up to 400 bags per hour.

The split gate (Fig. 6) was different from any previously used: (1) Overhead bridges were used to prevent fruit from being knocked to the floor, thus eliminating the necessity of a hood-type guard. (2) One half of the gate was made larger than the other half. The smaller part of the gate closed last. Because it was smaller, greater certainty of only one fruit at a time getting through tended to increase the accuracy of weighing. It was also learned that by making one half of the gate larger than the other, the total width of the gate could be increased. This enabled the chute to be filled faster than would be the case with a narrow opening.

The production figures showed that almost unbelievable bagging speeds were possible. In fact, girls could bag as high as 15 bags of apples per minute when the bags were check-weighed only by a separate operator. When fruit was weighed as it was bagged, girls easily averaged 300 bags per hour and frequently 400 bags. The operations were not carried out long enough

to develop experienced workers and in the future, as improvements are made on the methods and equipment, it is likely that two experienced girls will easily bag out one car of fruit per day.

While the labor costs of bagging apples were found to be less than the cost of placing apples in the standard box, the cost of materials was considerably greater with these new consumer units. For each 40 lbs. of apples an extra cost of 40 to 50 cents was incurred. In the future, re-arrangement and new designs of equipment in the packing house will open up the possibility of reducing the cost of pre-packaging apples even more. In fact, overhead costs of the plant may also be lessened. Considerable further research, contemplated this season, will be needed before this will be realized.

The newness of the type of bags used gives every reason to expect that, as additional research effort is combined with increased volume of bags fabricated, new techniques and lower prices may be expected.

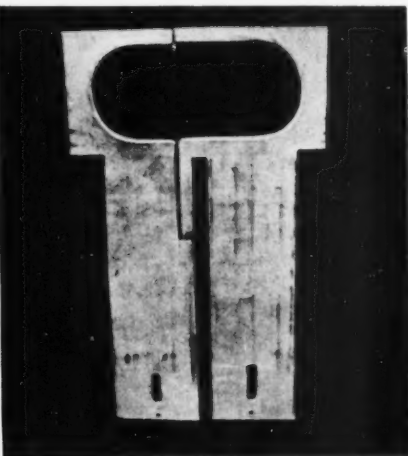
Shippers in Washington State are taking pre-packaging seriously. They realize they need much more information and research to solve their problems. Their present production lines are probably further developed than in any other horticultural area in the United States. Therefore, changes must be studied carefully, but meanwhile they are optimistic about the future. Supplies have already been ordered for about four times as many bags as were shipped last season and everyone is waiting to see if the enthusiastic market response of last year will, this fall, prove to be a manifestation of a permanent trend.

CREDITS: "Dent-O-Pak" bags (patent pending) by Denton Corp., Oakland, Calif., using Pliofilm by Goodyear Tire & Rubber Co., Akron, Ohio.

5. HIGHER-SPEED bagging was made possible by the development of this weighing filler with its single-gate chute operated by foot switch. Later an improved "split" gate (see Fig. 6) was adopted.



6. SPLIT GATE now used on filling chute. As desired weight nears, right half of gate shifts upward, admitting one apple at a time.



Ampoule speed-up

UPJOHN'S VERSATILE MACHINE FILLS

AND SEALS AUTOMATICALLY, GIVING A 50% INCREASE IN PRODUCTION

WITH A TWO-THIRDS SAVING IN LABOR

The constant development of new products in the drug field is directly reflected in packaging activities through the needs of pharmaceutical manufacturers for more accurate, faster, sanitary and economical filling machines. This was emphasized again and again by speakers from the various drug houses at the recent Packaging Institute meeting.

Of interest, therefore, is the new ampoule filling and sealing machine recently installed in the Sterile Solutions Department at the plant of The Upjohn Co., Kalamazoo, Mich., which, the company reports, gives a uniform fill within a 1% tolerance, is adjustable to filling ampoules ranging in size from 1 to 5 cc., can be dismounted for sterilization in less than a minute and provides a complete and uniform seal.

Only one operator is needed to feed the ampoules into the hopper of the machine which fills and seals them automatically. The output during a single shift is equal to the output of a three-operator team on one and a half shifts using conventional filling and hand-sealing methods, according to the company. In other words, with the machine Upjohn effects a 50% increase in output with a 66 $\frac{2}{3}$ % saving in labor.

The small, compact machine has a triangular-shaped tilted hopper into which the sterile ampoules are placed, the opening of the hopper being designed so that only one ampoule at a time can feed onto the intake conveyor of the filler. Equal spacing of the ampoules on the conveyor is accomplished through the design of guide bars on one side of the conveyor, the bar edges being a continuous series of curves that catch and hold steady the neck and body of the ampoule as it moves forward.

A special feature of the filling operation is a syringe which sucks back all excess liquid and creates a vacuum sufficient to draw the liquid from the bulk container through a sintered glass filter. The removable filling needle—designed to reduce foaming and adjustable to different heights—is centered over the neck opening of the ampoule so that it drops down into the neck without touching the side walls, thus preventing the deposit of any of the solution on the inside of the neck. The

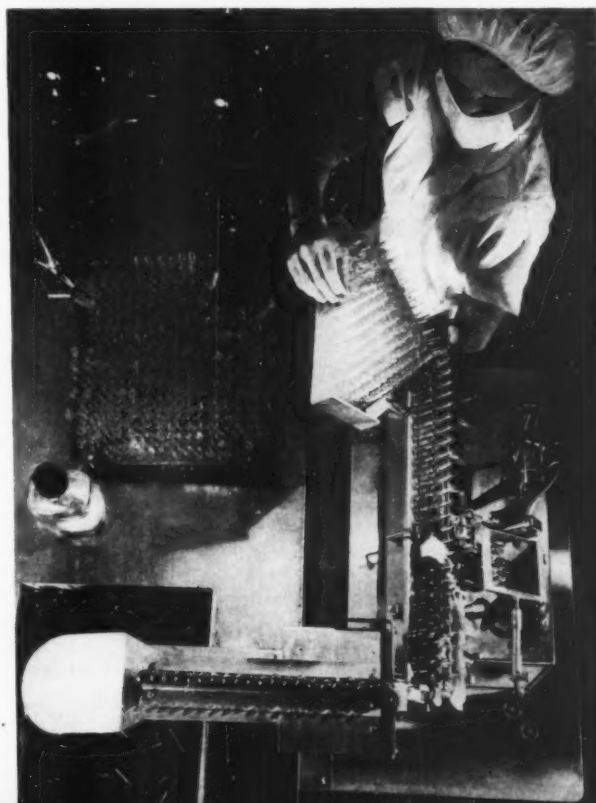
needle also lifts out cleanly without dropping any liquid. The filler is equipped with a no-container, no-fill device.

A series of three burners have a gas-and-air, or gas-and-oxygen, fuel mixture and each ampoule is rotated under the burners to facilitate a complete and uniform seal. The machine can provide for flushing the ampoule with inert gas before flame sealing the neck.

A cooling conveyor, placed at right angles to the conveyor of the machine, picks up the sealed ampoules and carries them slowly to a chute that empties into a receiving tray. The conveyor is sufficiently long to assure that the ampoule seal is set. A magnifying viewer is attached to the filler so that the operator can check seals as ampoules go onto the cooling conveyor.

CREDIT: Ampoule filling and sealing machine, Chase Equipment Corp., New York.

SINGLE OPERATOR loads sterile ampoules and machine does all the rest, discharging accurately filled and sealed ampoules at lower left.



Ice cream



ADAPTABLE to all types and sizes of containers, the colorful fiesta design conveys a feeling of gaiety and puts over its slogan: "Fiesta means a flavor feast." While basic design is same for all, prominence is given to each distributor's own brand or company name by tying it in with the "F" of Fiesta.



What chance does the smaller, local ice-cream manufacturer have in competition against nationally advertised and franchised brand names?

Pondering this problem confronting many of their customers for Nutrimix (a form of non-fat, dry milk solids used in ice-cream manufacture), the Golden State Co., Ltd., San Francisco, hit upon the idea of developing a brand name and an integrated packaging, advertising and merchandising program which could be made available to all Nutrimix users on a non-profit basis to permit them to compete—so far as brand prestige and package recognition are concerned—with the national dairy giants.

This idea was the genesis of the new Fiesta brand packaged ice cream now appearing in 12 states from coast to coast, with one ice-cream manufacturer in each

area having the territorial exclusive for the name and package. These companies, whose own names are already recognized and accepted in their respective localities, cooperated with Golden State Sales Corp. (the subsidiary company merchandising Fiesta) and its advertising agency in planning the details of the package, the advertising, etc.

The Fiesta ice-cream package is the foundation of the whole program and in its design concept—even the name itself—it represents several innovations in the ice-cream industry. The entire program required three years of preparation.

The first item on the agenda was to find out what basic selling appeals were being used to promote ice cream. Packaging and advertising of the product were studied and it was found that there were nine different

can be fun

THAT'S THE SPIRIT OF GOLDEN STATE'S NEW 'FIESTA'

PACKAGE PLAN FOR SMALL MANUFACTURERS

approaches being used by other companies successfully: sanitation and protection, modern production methods, old-fashioned and time-tested, nutrition and health, satisfying food, quality, richness, smoothness or superior flavor.

The sales appeal chosen by Golden State executives for the new brand ignores all of these for a broader, more embracing appeal. People, they reasoned, eat ice cream primarily for enjoyment; they like it. And this is the reason for the name, "Fiesta," which suggests a party, an occasion, a time when people enjoy themselves. The dancing harlequin figure that dominates the package design is thus in keeping with the name, as are the Mardi Gras figures which surround the harlequin. Even the slogan, "Fiesta Means a Flavor Feast," carries out the theme.

The fact that the major portion of ice cream sold today is packaged is another reason for the decision to use this different sales approach for the new brand. Surveys show that ice cream is, for the most part, an impulse purchase. The Fiesta name and theme lend themselves to the use of gay, exciting colors that give the package the eye appeal it needs to stand out in the glass-topped refrigerated cases of self-service stores.

The Fiesta colors are of shades more often associated with packages for perfumes, cosmetics and similar products that demand the creation of an illusion as part of the selling technique. The predominating color on the package varies according to the flavor—brown for chocolate, pink for strawberry, etc.

In working out the design of the package, special attention was paid to the execution of the harlequin figure. The participating ice-cream manufacturers wanted him portrayed in such a manner that he would

reproduce vividly in newspaper advertising—in any size, small or large. The black and white diamond-patterned costume is simple and strong enough to meet all requirements. Likewise, it was important that the package be designed so that the manufacturer could continue to work his own name in with the Fiesta brand name. This was neatly accomplished by styling the lettering so that the "f" of the brand name is elongated to hook in with the local distributor's name above.

The design theme had to be planned to fit many different types of packages, from a 3-oz. cup to a gallon container. Thus the positions of the harlequin and Mardi Gras figures change from one style of package to another, but on each the theme and continuity of design are carefully maintained.

For display purposes it is important that the flavor be identified on the package in as many places as possible. On the pint and quart linerless cartons the flavor is printed on each of the six sides. These cartons are printed in three colors: the predominating flavor color, the name in a brilliant yellow which is bendayed to a cream color for the background, and black.

The Fiesta pink is the predominating color for the gallon and half-gallon containers, the various sizes of cups and the special round "Fiesta Supreme" pint for catering-grade ice cream. On the two large-sized containers, which are paraffined, there is an unwaxed portion on the lid for imprinting the flavor. The same procedure is used for the nesting-style containers.

Ice-cream manufacturers participating in this collective Fiesta package-merchandising program enjoy the benefits of large-quantity purchasing to obtain better-quality cartons, art work, merchandising materials and advertising which alone they could not afford.

The package design has been integrated in the design of all point-of-sale and outdoor advertising materials such as flavor strips, decals, truck paintings, etc.

At a time when ice-cream sales were beginning to feel the effects of competition with more essential foods—when the housewife began to choose whether she would serve macaroni for supper and ice cream for dessert, or a meat entree and skip the ice cream—the Fiesta campaign is bringing good results. A letter from the Santa Fe Creamery Co. is typical of those Golden State has received: "We are more than sold on this deal. We have added stops to our account that we could not get before—thanks to a more attractive carton and our Fiesta advertising program."



FORMER PACKAGES of local companies now participating in the plan were a hodge-podge of conventional designs—unable to compete in today's self-service selling with national brands.

CREDITS: Cups and cylindrical containers, Dixie Cup Co., Easton Pa.; Lily-Tulip Cup Corp., New York; Sealright Co., Inc., Fulton, N. Y. Linerless cartons, Marathon Corp., Menasha, Wis. Bulk-Pak cartons, Sutherland Paper Co., Kalamazoo, Mich.

Meat pre-packaging:

Pre-packaging of cut fresh meats for self-service retail sale has been one of the fastest growing trends in packaging in recent years—and at the same time one of the most controversial.

More than 700 retail stores by the end of 1948 had gone completely self service on meats. Frequent reports on these operations, in *MODERN PACKAGING* and elsewhere, leave little doubt that customers will buy more meat when they are offered a pre-packaged selection and that, furthermore, the store's volume on other items tends to rise in proportion to the extra sales attracted by the convenience of packaging. Yet many retailers have been loud in their complaints about the difficulties encountered in packaging and preserving cut meats; technically it has been a much bigger challenge to packaging than produce pre-packaging.

Proper evaluation of the claims for and against meat pre-packaging has been hampered by lack of broad-scale information on current practices—which, as in any mushroom-like growth of packaging in a new field, have not always been on the most scientific basis. Now, for the first time, a wealth of information on meat pre-packaging is being brought together in one comprehensive report. The Production and Marketing Administration of the U. S. Department of Agriculture—known as PMA—has done the job in a special project under the Research and Marketing Act of 1946.

In this study a good many nooks and crannies of the meat pre-packaging business were looked into and talked over with store owners. What PMA was trying to get was an over-all picture. To do this, it checked on how well pre-packaging was being received by both

stores and customers, what materials and equipment were used, how the meat was being merchandised and what the costs were per pound, per hour of labor and per package. It also dug down into problems still to be solved—such as discoloration, unsatisfactory packaging techniques and the best use of labor.

The report shows that only about 400 stores in the United States had self-service meat departments when this survey started in 1948. Of these, 88 were found to be less than two years old, with 61 of these 88 less than a year old. By June of 1949, however, this method of selling meat had spread so rapidly that 1,200 stores were reported to be retailing pre-packaged meats on a 100% self-service basis and 5,000 stores on a semi-self-service basis.

The 97 stores used in the PMA study were scattered from coast to coast in 80 cities located in 27 states and the District of Columbia. At the beginning of the study, this figure of 97 was about 25% of all the stores doing meat pre-packaging, a large enough sample to give reliable findings. The stores chosen included 65 chains and 32 independents.

Pre-packaging preferences

Personal interviews with the stores doing this type of retailing gave full and preponderantly favorable information on meat pre-packaging. Both stores and customers handed packaging high acclaim. Of the 51 stores that had converted their service meat departments to self service, 46 said their sales were boosted. They reported 130 instances of increased sales on 14 meat items and only 30 instances of decreased sales on

Efficient use of labor is key to cost reduction

SKILLED BUTCHERS should concentrate on cutting; costs rise when they do packaging. In this pre-packaging operation at S. W. Kagan Co., cuts are made, piled on tray carts, transported to packaging room.

UNSKILLED WORKERS quickly become skillful at packaging when the proper materials and facilities are provided for them; it is not necessary to use butchers for this task. But few individual stores are large enough to support this type of operation.



PHOTOS COURTESY VALARTA DIV., AMERICAN MEAT CO.

where does it stand?

AGRICULTURE DEPARTMENT'S SURVEY PROVIDES

THE FIRST COMPREHENSIVE PICTURE OF

PRACTICES, PROBLEMS AND PROSPECTS IN

THIS BOOMING NEW FIELD

12 items. Taking all 97 stores into consideration, 51 reported a steady general upward trend in pre-packaged meat sales and 27 others reported sales now leveling off at a point still above the high volume established at or soon after the time this new merchandising method started. Of the remaining stores, 13 said sales had leveled off below the high point reached at or soon after opening, four reported no change and only two said sales had declined.

As for what the customers had to say, operators of 67 of the 97 stores told the interviewers that their customers had reacted enthusiastically to the new self-service departments and 28 reported moderate enthusiasm. Only two stores of the whole lot said their new departments hadn't been well received.

Stores and customers both gave valid reasons for liking pre-packaging. Heading the comments by store managers was "full, attractive display," reported by 20 stores, followed by "more attractive package," cited by 13. Favorable comments by customers, as reported by the stores, included these: reported by 46 stores, "no waiting"; by 26 stores, "better selection"; by 18 stores, "purchase to suit household budget"; by 16 stores, "know what they're buying"; by 15 stores, "may take their time"; by 15 other stores, "can buy cheaper cuts without being embarrassed." Some customers did complain a little about missing their personal contacts with the butcher, or said they liked to see their meat being cut.

Most of the stores interviewed sold from 95 to 100% of their meat pre-packaged—93 out of the 97 stores, to be exact. Three sold only between 50 and 90% and one sold less than 50% self-service style. Poultry sales followed about the same general distribution, 92 of the 97 stores selling from 95 to 100% pre-packaged. Fish sales were from 95 to 100% self service in 76 stores, while in 19 stores pre-packaged fish constituted less than 50% of the total fish sales.

Types of packages

All the 97 pre-packaged meat departments interviewed used MSAT-80 cellophane (or equivalent) for wrapping fresh meats; 16 used it for smoked meats; 19 for luncheon meats; 45 for fresh poultry; 18 for fresh



SALES STIMULATION by self-service meats is reported by 91 out of 97 stores, but dealers are still wrestling with the problems of cost of pre-packaging and shelf life of the product.

fish. Next in order of use was LSAT cellophane (or equivalent)—61 stores using it for smoked meats; 59 for luncheon meats; 27 for poultry; 16 for fresh fish.

Other films reported being used were MST-52 cellophane, Pliofilm, MSBO cellophane (now designated as MS-1) and Lumarith acetate. Of these, MST-52 principally wrapped luncheon and smoked meats, and Pliofilm was used primarily for smoked meat and fresh poultry. Table I shows a breakdown of the various films and their applications.

A majority of the stores used both sheet film and roll film, though 19 reported using sheet film only and 10 roll film only. These stores used from four to seven sizes of wrapping film—most common being the 10 by 10-in. size and, next in order of use, the 12 by 12, the 15 by 15 and the 10 by 12.

No department used roll film in more than four sizes

TABLE I—TYPES OF TRANSPARENT FILM AND HOW USED

Meat item	Stores using					
	MSAT-80	MST-52	LSAT	MSBO (MS-1)	Plioilm	Retailers supplying information
Fresh meats	97	..	..	..	..	97
Smoked meats	16	8	61	..	11	96
Luncheon meats	19	12	59	3	2	95
Fresh poultry	45	5	27	..	13	90
Fresh fish	18	2	16	2	2	40
Number of retailers interviewed	97	97	97	97	97	97

NOTE: Lumarith (acetate) was not being used by any of these stores at the time this table was compiled, but was adopted later by some.



SPECIAL SERVICES are used by 90 out of 97 stores. Fairfax Supermarket, Washington, D. C., provides microphone (left) for customers to talk direct to cutting room about special cuts. Clock display (right) emphasizes that ground beef is "ground and packaged fresh every hour."

—the sizes varying from the most common 15-in.-wide roll down to the 9-in. size reported used by only two stores.

Labeling practices

These packages all were topped with labels, most commonly used being the thermoplastic label, which was used by 52 of the 97 stores. Thirty-seven stores reported using a greaseproof paper label and four used a pressure-sensitive label.

The question of where to place the labels was also looked into. Most of the stores—55 of them—applied labels on the outside of the package, 40 stores placed them on the inside and two did it both ways, placing labels both inside and outside the wrappings.

Stores holding to the idea of outside-the-wrapper labeling gave these reasons: convenient and neat, can be priced after weighing, label will not slip, package easier to wrap. Those doing the inside-labeling job

claimed it prevented label switching by customers and was better suited to their operations; they also pointed out that an outside label can fall off.

What was written on the label was pretty generally the same, all of the 97 stores noting the total price, 96 including the name of the cut and the net weight, and 71 including the price per pound. Ninety-four stores also were careful to see that their own name or trademark appeared on the label. Sixty-three code dated their packages to tell the day they were wrapped.

Other materials used in pre-packaging meat included pulp trays, waxboard trays, U-board trays, backboards or pads and cups. These helped make the package firmer and prevent leakage. Table II shows the types of containers or backing materials preferred for various cuts and types of meat.

Types of product

Ham and bacon generally were wrapped in transparent film only. More than half the stores used backboards or pads in packaging roasts, steaks, chops and other fresh meats. Both methods—film only or combination of film with backboards or pads—were used for luncheon meats. Pulp trays and waxboard trays came into general use in packaging cut-up poultry and offal products. Most stores packaged eviscerated poultry in film only, or with pulp trays.

As to what goes into these shining, transparently wrapped packages, beef made up about a third of the total tonnage—far outracing any other single product. On a percentage basis, independent stores handled slightly more fresh beef, fresh pork, processed meats, frozen fish and frozen poultry than chain stores. On the same basis, chain stores handled more fresh veal, smoked meats, fresh fish and fresh poultry.

Most of the stores also pre-packaged processed and natural cheese, reporting it increased cheese sales.

Packaging and selling techniques

Because meat pre-packaging is in the brand-new stage, much of the how-to-do-it technique had to be worked out by the individual stores.

All the fresh red meats and the greater part of all other meat items excepting frozen meat and frozen poultry were pre-packaged right in the retail stores. Half of the frozen meat and 65% of the frozen poultry items were packaged by conventional meat or poultry processing plants, with a smaller percentage being packaged by warehouses or "mother" stores. About a fourth of the smoked meats and a third of the frozen fish items were packaged by conventional packers.

Most stores placed their wrapping and cutting rooms immediately behind the self-service meat cases, putting their wrapping rooms nearest the sales floor. Many recommended a glass partition and a higher elevation, so the wrappers and weighers could see the sales floor and the customers could watch weighing and wrapping. If the cutting or wrapping room wasn't on the same floor, an elevator was usually necessary if a large volume of meat was handled.

TABLE II—TYPES OF CONTAINERS AND SUPPORT MATERIALS

Meat items	Transparent film only	Pulp tray	Waxboard tray	U-board tray	Backboard or pads	Other (cups, etc.)	Stores reporting
Roasts	30	16	5	12	61	..	95
Steaks and chops	22	24	6	12	67	..	93
Other fresh meats	23	21	4	1	49	..	84
Hams	85	1	4	..	12	..	93
Bacon	79	..	..	..	10	..	86
Luncheon meats	48	12	1	..	42	..	87
Eviscerated poultry	35	27	10	2	6	1	74
Cut-up poultry	13	48	30	2	4	1	82
Fresh fish	18	14	6	..	7	3	38
Offal products	11	45	33	5	3	13	92

Many stores had more than one cold-storage room, using one room for storing primal cuts (and often also as the cutting room) and using the other room for storing wrapped and unwrapped cuts. Unwrapped meat was usually stored on trays and wrapped meat on trays, in baskets or in some other type of master container.

Some stores used a communication system between the cutting room and the sales floor for use when customers wanted special cuts. Store personnel also used it in coordinating the packaging operations with movement of meat from the displays.

Several stores used conveyers to move trays of cuts from the cutting to the wrapping room and on along the wrapping counter. Overhead rails frequently carried the meat between the unloading platform and storage cooler.

The sheet film used in wrapping was placed at the wrapping counter to be easily available. Some stores posted a chart as a guide on the size and type of film to use for various cuts. Departments using roll film usually placed the holders on or above the wrapping counter and between the scales. They generally kept labels in pigeonhole arrangements above the counter and other wrapping materials in trays or on shelves under the counter. They usually recessed sealing plates in the center of the counter and put the hand sealing irons on top of the counter.

About two-thirds of the stores placed their self-service meat displays at the rear of the stores. The line of traffic usually moved from right to left along the cases, making it easy for the right-handed shopper to reach the case.

Four stores had separate check-out stations for the meat departments, charging costs of these stations to the department. Only 32 of the remaining stores either pro-rated or made a direct charge against the department for check-out service, the others making no special charge against the meat department.

No single standard showed up in this study for arranging meat in the cases, although there was a tendency for smoked meats, ready-to-eat meats, roasts and steaks to show up first along the line of traffic. Chops, poultry and offal items most commonly appeared in the center, and hams and fish at the end of the line.

All the operators at the start recognized the necessity of properly introducing the self-service meat departments to the public. The 97 stores used nine different methods to perform these introductions. Local newspaper advertising led, with 72 using it; radio followed, with 24 stores using it, and circulars were used by 12 stores. One store used a streamer trailing from an airplane, another used a sound truck, two held open house and others reported using window and interior display signs.

Once announced, display of the pre-packaged meats in the cases became an important factor in keeping up interest in this type of service. Some stores placed packaged meat flat in the case; others used a "shingle," or partially overlapping arrangement; still others stood the packages on edge. Most stores used more than one

method—placing the packages flat in the case to spread fewer cuts out over the space on days of light sales and using the other methods of layering or placing on edge on heavier sales days.

The great majority of the stores (83) arranged the same meat items in the same section of the case every day. The remaining 14 changed from day to day, citing among other reasons for this that it causes customers to look around and breaks the monotony for them.

More than half the stores surveyed reported that they trimmed their meat cuts for pre-packaging more closely than when the same cuts were sold over service counters. Reasons given for this were three: (1) to reduce fat, given special emphasis by stores handling heavy carcasses; (2) to remove sharp bone edges, thereby reducing breakage in wrapping film; (3) to improve appearance, thus increasing customer acceptance.

Nearly all these self-service departments provided certain special services, the most common being cutting meat in different thicknesses on the customers' requests. Other services included grinding steak, boning and rolling hams, cutting center slices of ham and cutting pockets in chops.

Only 12 stores included recipes or cooking suggestions in their meat packages and these were all chain stores.

Sales volume and costs

To get a valid background for comparing costs and judging methods of handling, volume passing in and out of the display cases was checked. Of the 97 self-

HAND SEALING IRON is indispensable to meat packaging operation. Note stainless steel work surface, holders for irons, rack holding four sizes of film sheets, and tape dispenser.



PHOTO COURTESY PENNSYLVANIA DIV., AMERICAN VISCOS COMPANY

TABLE III—LABOR COSTS IN PRE-PACKAGED MEAT DEPARTMENTS

Weekly volume of sales	Stores	—Labor cost per lb.—			—Labor cost per package		
		Skilled ¹	Unskilled ²	Total	Skilled ¹	Unskilled ²	Total
Dollars	Number	Cents	Cents	Cents	Cents	Cents	Cents
2,000 and under	10	3.7	1.7	5.4	3.6	1.7	5.2
2,001-4,000	17	3.4	1.5	4.9	4.1	1.8	5.9
4,001-6,000	25	2.5	1.7	4.2	2.9	2.0	4.8
6,001-8,000	12	2.4	1.8	4.2	2.8	2.2	5.0
8,001-10,000	8	2.4	1.9	4.3	2.7	2.1	4.8
10,001 and over	8	2.4	1.8	4.2	3.1	2.2	5.3
Average of all stores ³		2.6	1.8	4.3	3.1	2.1	5.1

¹ Managers and cutters.

² Weighers, wrappers and others.

³ Eighty stores included—25 independent stores and 55 chain stores.

service meat departments, 52 had average weekly sales ranging from \$2,000 to \$6,000. Ten stores had weekly sales volumes of less than \$2,000; 19, from \$6,000 to \$10,000; 16, of \$10,000 and more.

As the sales volume and tonnage increased, the size of the retail package also increased—moving up from about 1 lb. for the smallest volume to 1 1/4 lbs. per package for stores with the greatest volume. The average was about 1.16 lbs.

As might be expected, labor costs went down as volume went up, averaging about 8% of sales in stores doing a volume of \$2,000 and less, and going down to about 6 1/2% in stores with a sales volume of over \$10,000. Total labor required to handle a pound of meat decreased as the total tonnage increased. For example it took one hour's labor to handle 17 lbs. of meat in stores with \$2,000 or less volume; in stores doing more than \$10,000 volume, one hour's labor handled 29 lbs.

Stores doing a volume of \$2,000 and under reported

their skilled labor handling 33.4 lbs. of meat an hour, while those in the volume range of \$8,000 to \$10,000 handled more than twice as much—78.3 lbs. Average for all stores was 61 lbs. an hour. Unskilled labor showed less range and averaged 45.4 lbs. per hour for all stores.

Labor costs for handling a pound of meat averaged 4.3 cents for all stores—ranging from 5.4 cents for the small-volume stores to a low of 4.2 cents for stores in three larger-volume ranges.

On a per-package basis, labor costs averaged about 5 cents, ranging from 4.8 to 5.9 cents.

After checking into the relatively high total labor costs in the two lowest-volume groups of stores, it was decided that the greater use and higher cost of skilled labor in these stores caused the greater costs.

Although the labor costs are quite complete, the report contains no figures on the costs of packaging materials. The authors report that when material cost figures were assembled they appeared so contradictory that it was considered wiser to hold them back for re-checking in a special study later.

Problems of packagers

As in all uncharted and newly founded lines of packaging, pre-packaging of meat still offers its full share of headaches. The 97 stores surveyed came up with 51 problems. Thirty of the major problems divided up into three general groups—discoloration, packaging techniques and labor efficiency.

Discoloration hit the top of the complaint parade, being reported as a problem by 72 of the 97 stores. Discoloration actually is the principal factor in determining the life of the pre-packaged meat in the display cases. About 56% of the departments reported their customers highly critical of color and "bloom" in pre-packaged red meats and 39% said their customers were inclined to be selective on this basis. And 95% of the departments also reported customers discriminated against meat that naturally cuts dark.

All stores had been trying hard to reduce discoloration. Some techniques they used before wrapping were: plattering before wrapping, using oxygenic paper and allowing a blooming period. After wrapping, 90 of the 97 were turning packages face down, keeping meat well refrigerated, and placing packages on display only as needed. Actual spoilage didn't prove much of a problem, 78 of the 97 stores reporting it amounted to less than 1% of sales.

There were many complaints about the inefficiency and high cost of labor. Many stores probably could reduce their costs by making better use of their skilled labor; that is, not allowing the cutters to perform unskilled tasks such as wrapping and sealing. But that appears to be dependent upon volume of sales.

All films used in wrapping came up for some criticism. Among the commonest complaints were: lack of visibility, doesn't seal readily, breaks or crumbles frequently, and fails to prevent discoloration.

About a third of the (Continued on page 188)

PROPER FOLDS are important to speed and neatness. Here acetate package is sealed with a single light stroke of the heat-sealing iron.

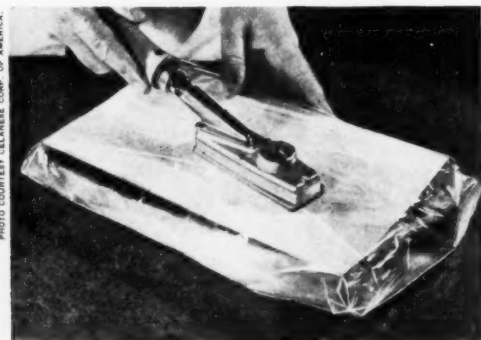


PHOTO COURTESY DELMONICO CORP. OF AMERICA



CUSTOMER'S CONFIDENCE that he is getting a genuine General Motors part is cinched when he sees the new yellow-and-black package at his Chevrolet dealer's counter. Pontiac and Oldsmobile divisions also use new uniform GM design.

A bolder GM

STRONG IDENTIFICATION, BETTER

LEGIBILITY, MONEY-SAVING SIMPLIFICATION ARE RESULTS OF

PARTS PACKAGE RESTYLING FOR THREE DIVISIONS

Rumors of a complete package redesign in process on General Motors' automotive replacement parts have been buzzing around in packaging circles for well over a year. Now the Chevrolet, Oldsmobile and Pontiac divisions have unveiled the distinctive new design that features easier product identification for service parts, together with up-to-the-minute styling of the familiar "GM" trademark.

A preview of the GM emblem which is the basis for the new design was given in November, 1948, when Chevrolet used it as the central feature of a corrugated carton developed for shipping windshield and window

safety glass.* But the glass carton deliberately has been kept different in appearance and color from the new design of other parts packages so that the breakable nature of its contents instantly would be apparent to shipping handlers.

Early this year the final approved design and color combination began appearing on cartons and other containers in which Chevrolet parts were shipped to dealers from General Motors Parts Division warehouses. Oldsmobile and Pontiac cartons were being switched to the new design shortly afterward. All three of the

* See MODERN PACKAGING, Nov., 1948, p. 216.

divisions had agreed to the new package as of Jan. 1, 1949, and details of the complete redesign project can now be told.

It has, of course, been a tremendous undertaking. To comprehend the magnitude of details involved in working out the design project—done completely within the GM organization—it should be explained that all the steps in the planning and production of the redesigned packages were coordinated by the GM Parts Division under I. W. Thompson, general manager. The packaging departments of the three car divisions and the corporation's photographic, styling and service sections cooperated. Representatives from all these organizations within the company served on the packaging committee.

Preliminary work was started almost three years ago in May, 1947, when L. W. Johnson, national parts distribution manager, and D. S. Millman, supervisor of Chevrolet Division's packaging research department, began a study to determine how many sizes of folding cartons were then in use in preparation for the contemplated package design change and simplification.

It was felt that the parts packaging should be modernized to meet current design trends and that in this

PRIZE WINNER in recent packaging engineers' contest was this pack for a ring gear and pinion unit, which shows the modification of the new design for use with the over-all pattern on corrugated cartons. D. S. Millman, supervisor of package research at Chevrolet-Flint, is shown here inspecting the pack, which he developed.



modernization three objectives should be considered. The redesigned packages should:

1. Emphasize to the customer that he is getting genuine General Motors replacement parts.
2. Offer dealers an eye-appealing package for display.
3. Provide much greater legibility of identification and information about the part.

Extensive research was undertaken by the packaging committee to develop a uniform design that would be practical for the wide variety of packaging materials used. Approximately 35 different basic designs were considered, all of them proofed up in several color combinations. By the process of elimination, the committee agreed upon one design and color combination.

Since it was felt important to retain as much identity of the old design as practical, the familiar GM trademark emblem was the starting point in the restyling. As it had appeared in the repeat pattern of the parts' previous package design, the emblem was almost square, with the initials printed in reverse using a Caslon style lettering. Immediately below was the word, "parts."

This combination of the emblem and the identifying noun has simply been pulled out and put into sharp relief as the body of the new design. To the emblem have been added the words, "General Motors," printed in reverse in the same style of lettering, and the important adjective, "genuine," modifying the noun. The basic simplicity of this design is given punch by the use of a bold color combination. The stock of the folding cartons and paper bags is a brilliant yellow; the printing is done with glossy black ink. The color of the stock thus becomes not a background shade, but the very heart of the design through the use of the reverse and positive engraving plate. This two-color effect with one-color printing is a major economy.

The flexibility of the basic new design to fit a vast variety of package sizes and shapes was a major consideration. For example, in addition to the 5,000 Chevrolet parts which are packaged in folding cartons, there are hundreds of other parts that go into paper bags, corrugated cartons, shipping tubes, wooden boxes, etc. While the symmetry of the design is apparent as it is seen on almost square cartons, on long, narrow, rectangular cartons, where the vertical printing of the General Motors name has been added, the design holds the focal point of the whole area. On Chevrolet's corrugated cartons, the new design has been added to the over-all design, using two-color printing; thus the containers have the appearance of a labeled package.

The third goal of the redesign—providing greater legibility of identification and information about the specific part—entailed considerable revision of copy, organization and positioning on the package. Previously, on folding cartons the part identification was printed on just one end panel; on the redesigned cartons it is put on both end panels so that the dealer can read it regardless of how the cartons are stacked or picked up. The part name is given emphasis through the use of larger, easier-to-read type; wording is spaced out to

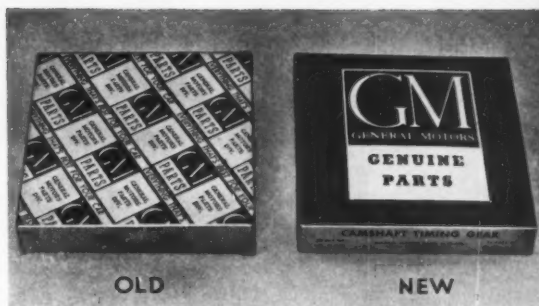
fill more of the end-panel space and secondary importance is given to the group and part numbers.

Many of the cartons are bought with blank end panels and the bags with blank panels on the front so that the part identification information can be imprinted as required at the factory and major warehouses at the time the parts are packaged, according to K. M. Mapes, packaging supervisor for Chevrolet Central Office Parts & Accessories Department.

So far, emphasis has been given to the surface re-design of the parts packages, but that is only part of the story. As a result of the preliminary study of Chevrolet's replacement parts packaging, it was found that the number of sizes of folding cartons could be reduced 56%—from 533 to 234. The Pontiac and Oldsmobile divisions have likewise made surveys to standardize on carton sizes. Pontiac has already adopted about 70 of the same sizes that Chevrolet used. This procedure has brought all three divisions considerable savings in the preparation of art work and in engraving and printing costs. The new program of fewer carton sizes and imprinting as required also adds to the flexibility in handling, Mr. Mapes says.

Chevrolet generally uses two basic styles of folding cartons: the folding reverse-tuck and the glue end-sealed style. Their size ranges from approximately 1 by 1 by 3 $\frac{3}{4}$ in. to 10 by 1 by 27 in.; thickness of board stock ranges from 0.020 to 0.040 in. Recently Chevrolet started using a newly developed paperboard which is exceptionally strong, tough and rigid for some of the heavier parts. There are 12 different sizes of paper bags, ranging from 2 $\frac{1}{4}$ by 3 $\frac{1}{2}$ in. to 13 $\frac{1}{2}$ by 21 $\frac{1}{4}$ in., used for packaging flat automotive parts.

The redesign program was put into effect the beginning of this year. Since January 1, the 12,000 national dealers of the three divisions have been re-



FOCAL POINT of the new design is the modernized "GM" trademark. In the over-all pattern of the old design its impact was dissipated. Note also the improved legibility of identification legend, which now appears on both end panels.

ceiving some orders in the new packages, but pending the exhaustion of supplies of the old-style cartons there will be a lag of a few months before the new cartons in all sizes appear on all dealers' shelves.

Although surface design was not a factor in the selection, it is interesting to note that two of the Chevrolet packages involved in this program were prize winners at the recent 1949 annual competition of the Society of Industrial Packaging and Materials Handling Engineers in Detroit.* First prize in the corrugated box class was won by the Chevrolet package for a ring gear and pinion unit and honorable mention in the same class went to the glass carton illustrated in *MODERN PACKAGING* in November, 1948, which now uses the "Sus-Rap" method of inner suspension.

* See *MODERN PACKAGING*, Nov., 1949, p. 114.

DISPLAY APPEAL depends upon impact of the bold color combination. Carton stock is brilliant yellow; printing is done with high-gloss black ink. Cartons in photo at left use new extra-strong folding board known as "Tuf-Bord." Basic design is adaptable to all types of package materials, sizes and shapes. Note its use on long, narrow cartons at right.



PHOTO COURTESY ROBERT GAIR CO., INC.



DESIGN

Prize-winning design in brewers' label contest

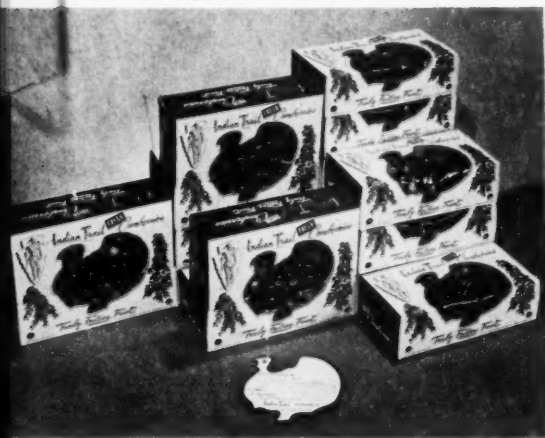


Dual winner at the recent annual label contest of the Small Brewers Assn. was this newly designed, gravure-printed, aluminum foil label for Sicks' Select beer, product of Sicks' Brewing Co., Salem, Ore. The quality appearance of the design and its eye appeal for self-service selling won for this well-styled label the "Grand Champion" honors. It also took first place in the association's foil label competition.

The new label is part of an over-all design program for Sicks' that includes neck labels, bottle caps, shipping cases, delivery trucks, etc. With minor text variations, the same label design is used for other breweries in the Sick organization.

CREDITS: Design, Walter Landor & Associates, San Francisco. Labels printed by Pacific Coast Foil Co., San Francisco, using Kaiser aluminum foil. Bottles, Owens-Illinois Glass Co., Toledo, Ohio, and Northwestern Glass Co., Seattle, Wash. Caps, Western Crown Cork & Seal Corp., San Francisco.

Cranberry package promotes turkeys as well as berries



This novel package for Indian Trail cranberries that sells turkeys as well as berries is said to be resulting in increased holiday sales for Cranberry Growers, Inc., Wisconsin Rapids, Wis. The new carton features a turkey-shaped window, the turkey cut-out being printed as an order blank for a turkey with the reminder, "Be sure to pick up plenty of Indian Trail cranberries to serve with the bird." The order blank is given to distributors to pass on to their customers with each cranberry package sold. The cellulose acetate window extends over two panels, yet the whole turkey design stands out when the cartons are stacked so that the bottom one is flat and the top one upright. The carton, which holds 1 lb. of cranberries, is made of high-quality, pure white paperboard, green and red printed, with the outer surface waxed to keep it clean.

CREDITS: Carton made by Marathon Corp., Menasha, Wis., using Celanese and Du Pont cellulose acetate.

HISTORIES

Nutmeg containers suspended from eggnog bottles

Holiday party-givers will welcome this addition to their bottles of prepared eggnog—a miniature sprinkler-top container of powdered nutmeg suspended from the neck of the bottle. This novel accessory package has been adopted for the Christmas season by several suppliers of bottled eggnog. The container, similar to those used as salt shakers on the airlines, may be had in any color and printed as desired. It is designed to be permanently attached to the bottle and its construction permits convenient sprinkling of the nutmeg on each drink as it is poured from the bottle into glasses. Measuring 1 in. high and $\frac{3}{4}$ in. in diameter, the containers are made of sanitary food board and consist of concentric cylinders telescoped for greater strength. They are delivered complete, filled with fine-quality nutmeg, ready to be attached to the necks of bottles.

CREDIT: "Leedpak" container, Specialty Package Division, Leeds Co., Inc., New York.



Transparent humidor pack

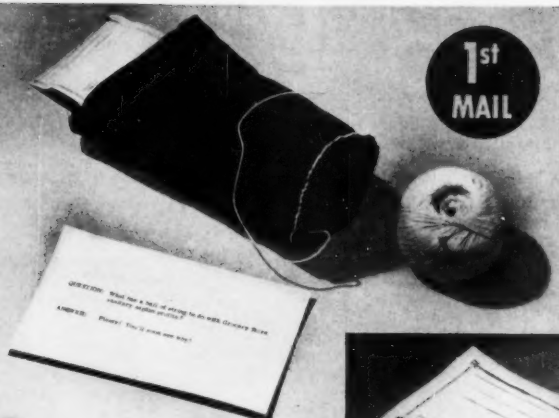
Tamps cigars, marketed by the Marta Cigar Co. of New York, retain their factory freshness in this new air-tight, waterproof Pliofilm pouch which also has the advantage of product visibility. The pouch, which maintains the cigars at the proper humidity by "locking in" the moisture and keeping the dryness out, holds three cigars, each individually wrapped in cellophane. Promoted as a "Humidor Pouch," the container is a convenient-sized unit for the consumer to carry in his pocket. Perforations across the top make it easy to open. The use of Pliofilm for the pouch is given prominence by copy printed on its surface, which also calls attention to the fact that this material keeps cigars "fresh from factory, fresh from dealer, fresh when smoked." The size of the pouch lends itself to multiple-unit merchandising and increased sales.

CREDITS: Pouch supplied by Milprint, Inc., Milwaukee, Wis., using Goodyear Tire & Rubber Co. Pliofilm.

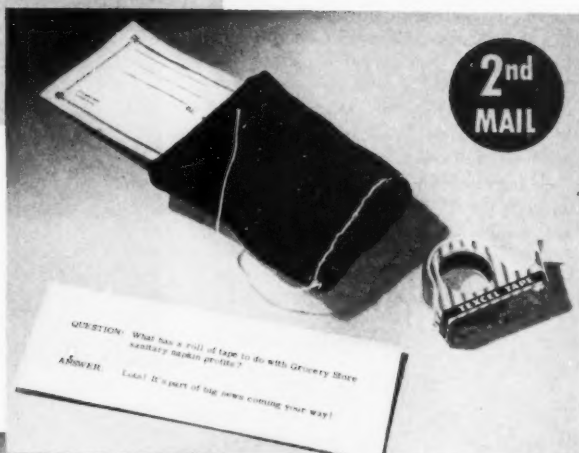


THE POSTMAN

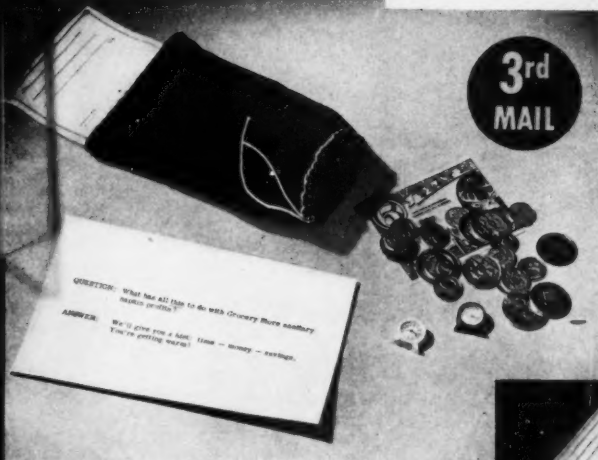
1st
MAIL



2nd
MAIL



3rd
MAIL



EACH MAILING consisted of a small, navy blue cotton bag containing provocative question-and-answer cards, along with wrapping materials the grocer or druggist uses when he does the wrapping himself. The fourth mailing, containing a box of pre-wrapped Modess, climaxed the story that pre-wrapped Modess saves material, time and money. The cards enclosed were printed and directed separately to grocers and todruggists.

4th
MAIL



RANG 4 TIMES

HOW PERSONAL PRODUCTS ACHIEVED DRAMATIC
BUILD-UP FOR NEW PRE-WRAPPED MODESS BY A
CLEVER DIRECT-MAIL PROMOTION TO DEALERS

One day recently business paper editors, drug and grocery dealers were surprised to receive through the mail small navy blue cotton bags in which there was nothing but a ball of string and a cryptic question: "What has a ball of string to do with sanitary napkin profits?"—with an answer, "Plenty. You'll soon see why."

On the following day they received a similar blue bag containing a roll of cellophane tape with a similar question: "What does a roll of tape have to do with sanitary napkin profits?"

On the third day arrived a third bag—this time full of toy money and a miniature alarm clock with the question: "We'll give you a hint: time—money—saving. You're getting warm!"

On the fourth day came the largest bag containing a box with the direction: "Open the box and see! And be sure to read the enclosed insert!" The secret was revealed—the whole story of pre-wrapped Modess boxes introduced by Personal Products Corp., Milltown, N. J.

This was the dramatic promotion stunt used to call attention to the latest innovation in Modess packaging. It is a particularly striking example of one of the methods that may be used to attract interest to a packaging improvement. Such publicity aids are of unlimited importance in the proper presentation of a packaging innovation to the trade and should be studied closely in these days of stiff competition.

The Modess pre-wrapping program is the second step in Personal Products' revamped packaging program for Modess. The first move was the change in shape of the Modess box about a year ago to help mask the identity of the contents. Unlike most products, the manufacturer's first problem in the merchandising of sanitary napkins is concealment. Customers want a package that tells no secret. Covering the box with a "blind" wrapping gives the final requirements of concealment.

For years, retailers have been pre-wrapping sanitary napkin boxes themselves in the store. This method of pre-wrapping, however, takes a considerable amount of the retailers' time. Personal Products Corp. put into effect its at-the-factory automatic pre-wrapping program following a survey which showed increases up to 300% in sales of pre-wrapped Modess.

The survey also showed that retailers who had been pre-wrapping Modess themselves had spent an average of 22¼ minutes wrapping a case of 12's and 10½ minutes wrapping a case of 48's. Now, with the new pre-wrapped Modess, all this time and money are saved for them—plus the cost of wrapping materials.

Each case of Modess 12's and 48's delivered to the

dealer now contains three-fourths pre-wrapped packages and the rest unwrapped. Customers merely have to pick up the pre-wrapped box in the self-service drug or grocery store, put their money on the counter and carry the package home, the discreet-shaped pre-wrapped package telling no secret. The unwrapped boxes are available for display purposes and for multiple sales when wrapped with other items purchased.

The wrapping is brown paper sufficiently heavy so that the printing on the box does not show through. The pre-wrapped boxes carry a perforated tab in color, indicating the napkin size, which may be removed.

The wrapping is done on specially installed automatic equipment at the Personal Products Corp. plant, comprising a wrapping unit and a labeler for applying the tear-off tabs to the ends of the boxes.

Trade advertisements announcing the pre-wrapping program were four-page inserts printed in two colors on the wrapping paper itself. A copy of the ad insert was included in the fourth mailing bag along with a sample of the pre-wrapped Modess, thus giving complete information about the project. The copy emphasized three points—"saves time, saves money and saves you"—all backed up with factual arguments proved by the survey.

CREDIT: Wrapping machine, Oliver Machinery Co., Grand Rapids, Mich.

AUTOMATIC WRAPPING is done on specially installed machines, one for the wrapping and the other (not shown in photo), a labeling unit which applies the perforated size tab on the end of each of the new pre-wrapped boxes. J. S. Moorman, director of Modess Div., Personal Products Corp., and V. I. Korsgard, production manager, are shown inspecting the new pre-wrapped box.



TWELFTH OF A SERIES



On this month's cover . . .

AUNT JEMIMA

READY-MIX

NOMINATED FOR PACKAGING'S HALL OF FAME BECAUSE:

- It opened up a whole new field of packaging
- It breathed life into its trademark and introduced selling by demonstration
- It turned premium promotion into trademark promotion
- Its package has for 60 years been a bull's-eye of color on grocery shelves

St. Joseph, Mo., prides itself as the birthplace of Eugene Field, famous children's poet, and as the Eastern terminus of the Pony Express—that picturesque service which carried the U. S. mail to and from California on a rugged eight-day schedule in 1860-61. But the “individual” who really put this Northwestern Missouri town on the map was a plump, smiling Southern mammy cook who never really existed, but whose “scrumptious” pancakes and packaged pancake flour have made her name and face familiar wherever people appreciate good food. That description could fit no one but Aunt Jemima.

It was fully 60 years ago, in 1889, that the St. Joseph public had its first opportunity to buy Aunt Jemima pancake flour. The intervening period, encompassing the Spanish-American War, two world wars and extremes of economic depression and prosperity, has witnessed a succession of business changes culminating in the acquisition of this famous product by The Quaker Oats Co. in 1925. But Aunt Jemima, like Old Man River, just keeps rolling along, steadfastly maintaining its position as the leading brand of pancake flour.

Selection of Aunt Jemima Pancake Flour as this month's nominee for packaging's Hall of Fame is not based on the mere familiarity of the trademark, although the product represents perhaps the classic example of a trademark which has been kept indelibly impressed upon the public mind through association with a living, breathing counterpart. Equally important is the fact that, so far as the records show, Aunt Jemima was the first packaged, prepared mix and, as such, the forerunner of a literal host of packaged products by some 200 or more manufacturers today. It was undoubtedly among the first of all packaged food products to be popularized by the demonstration technique. Nor would the Aunt Jemima story be complete without some reference to premiums, for premiums have played an important place in the merchandising of this pioneer product as far back as 1895, when the

EARLIEST CARTON on record appears on 1902 letterhead, which reveals correspondence with “Aunt Jemima” Green, first famous Negro demonstrator who traveled the country baking pancakes and actually booking orders for the mix.



famous Aunt Jemima rag doll made its initial appearance, and always premiums have been skillfully employed not merely for their intrinsic value, but as a means of building trademark remembrance.

History of the product

Product-wise, the Aunt Jemima story begins in the kitchen of Chris L. Rutt, a St. Joe newspaper man, about 1889. A year earlier Mr. Rutt, in association with W. H. Wachtel and D. D. Burnes, had formed a small mill known as the Pearl Milling Co. to manufacture cornmeal, hominy and flour. In 1889 Mr. Wachtel retired, assigning his stock to Charles G. Underwood, and Mr. Rutt and Mr. Underwood began experimenting with the development of a self-rising pancake flour. Eventually they evolved a successful combination of hard wheat flour, corn flour and calcium phosphate with soda and salt for leavening.

After working out the desired formula, Rutt devised the original trademark, consisting of the picture of a toothy, grinning Negro woman with red bandana—more of a caricature than a portrait by today's standards—used in combination with the name, Aunt Jemima's Pancake Flour. Records indicate that the product was first packed in 1-lb. paper bags and first sold in St. Joseph in 1889.

The original company was reorganized during the winter of 1889 and under the new name, Aunt Jemima Mills Co., was granted trademark No. 17,825 in April, 1890. First use of the trademark, which covered Aunt Jemima's Pancake Flour with the picture of the Negro woman, was claimed as Nov. 27, 1889. Some three years later, the Aunt Jemima formula, business and trademark were purchased by the R. T. Davis Mill Co. of St. Joseph and it was this organization that first achieved widespread distribution of the product.

The R. T. Davis Mill Co. went through bankruptcy in 1902, but was successfully reorganized two years later by Robert R. Clark and associates. In 1914 the firm was reorganized as the Aunt Jemima Mills Co., with Mr. Clark as president, and when the entire business was acquired by The Quaker Oats Co. in 1925, Mr. Clark stayed on as general manager of what became the St. Joseph plant of Quaker Oats.

Like many another famous product, Aunt Jemima

TODAY



BRILLIANT red-and-yellow kerchief and background, life-like reproduction of the smiling, shining Aunt Jemima face by Haddon Sundblom, distinguish today's lithographed tight-wrap labels, in use since 1946. Each of the two types of pancake mix comes in 20- and 40-oz. sizes.

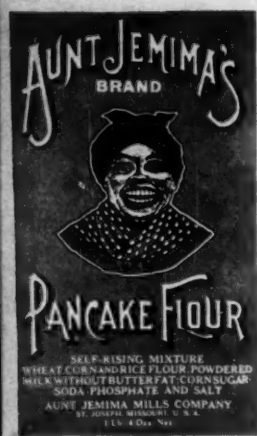
Pancake Flour found in the many fairs and expositions which were in vogue around the turn of the century an excellent opportunity to make friends and influence people. The product was first offered to the public at St. Joseph's own New Era Exposition in the fall of 1889 and this early pattern was followed through the years. The World's Columbian Exposition at Chicago in 1893 was a major factor in gaining public favor for the new, easy-to-make pancakes. It was there that one of the first Aunt Jemima demonstrators baked and served her delicious pancakes to the public in large numbers.

This, then, is the background scene—taken from a series of Aunt Jemima historical paintings by the famous artist, N. C. Wyeth—depicted in this month's cover illustration.

The legendary figure of Aunt Jemima has been incarnated by a host of bandannaed Aunt Jemima demonstrators over the last 60 years and so artfully has the story been woven that generations of Americans have



EVOLUTION of modern design is shown, starting with 1916 illustration by A. B. Frost, which was first improvement over original 1889 Aunt Jemima head. The Haddon Sundblom painting first appeared in 1936. The basic front-panel layout and trade-name typography have been consistent for 33 years.



THEN AND NOW. Aunt Jemima's personality has undergone striking improvement since the original paper bag illustration of 1889, at left, which appeared in black and white on dark red. At right is photo of original Haddon Sundblom oil painting, now reproduced on all packages.

grown up to believe today that there *was* an original Aunt Jemima—a Southern plantation cook whose pancakes won the hearts of battle-weary Confederate officers during the Civil War and who later was persuaded to move north to St. Joe and supervise the manufacture of “her” pancake flour. That is the story immortalized by the Wyeth paintings, done about 1919, which are reproduced with this article.

The arch-perpetrator of the legend, however, was the first and most famous demonstrator of Aunt Jemima pancakes—“Aunt Jemima” (Mrs. Nancy) Green, a St. Joseph Negro woman who was hired to dress in the costume depicted by the label and bake and serve pancakes at the 1893 Chicago fair, just as is shown in our cover illustration. Her employers could not have imagined the ramifications of their idea—the fame that “Aunt Jemima” would achieve. But Mrs. Green was taken to be the real Aunt Jemima and nothing was said to dispel the legend.

The files of The Quaker Oats Co. contain a medal from the World's Columbian Exposition inscribed as

follows: “Presented by the International Food Statisticians to Aunt Jemima Green of the R. T. Davis Mill Co., St. Joseph, Mo., for having cooked more (over a million) and better pancakes than has been served by any man or woman.” The fair of 1893 also witnessed the popularization of the phrase, “I’s in town, Honey,” which appeared on Aunt Jemima portrait buttons distributed at the exposition and later used to proclaim the appearance of an Aunt Jemima demonstrator.

Aunt Jemima Green later traveled all over the country for the company and its successors to spread the fame of the revolutionary new pancake mix by actual demonstration. In later years, of course, as markets widened and new developments, such as radio, entered the picture, the Aunt Jemima role has been filled by hundreds of other carefully chosen Negro women.

The original Aunt Jemima demonstrator willingly and enthusiastically took part in such important trade expositions as the Trans-Mississippi and International Exposition at Buffalo (1901). But when the opportunity came to demonstrate her famous pancakes at the Paris Exposition, she firmly declined.

“They ain’t no man gonna git me on the watah,” she said. “I was bo’n in this country an’ I’m gonna die heah—not somewheah ‘twixt heah an’ somewheah else.” Actually, she died in Chicago in 1923, after being run down by an automobile which had struck another vehicle and leaped the curbing.

The greatest latter-day mass demonstration of Aunt Jemima pancakes was staged at Chicago’s Century of Progress Exposition in 1933-34, when a battery of “Aunt Jemimas” served millions of the delicacies to visitors from all over the world.

As “Aunt Jemima” Green traveled from city to city on behalf of the famous product which she personified, she maintained a steady correspondence with officials



How Aunt Jemima saved the Colonel's moustache

Company arriving at Colonel Higbee's Mississippi River plantation early one morning when the cook was ill. The Colonel was about ready to twist his fine moustache out by the roots when young Jemima came to his rescue, serving all the colonel's guests a delicious breakfast of her own pancakes.

The night the Emily Dunstan burned

Several years later, Jemima—now Aunt Jemima—saw the steamer, Emily Dunstan, burn and sink along the Mississippi. Some of the ship's passengers, to whom she served breakfast, took back to the North word of the fine pancakes they ate in her cabin.

of the R. T. Davis Mill Co., covering her itinerary, expense account records and related matters. Her fervent role as a missionary carrying the gospel of better pancakes to customers is apparent in these letters.

Evolution of the package

The early history of the Aunt Jemima package is somewhat obscure. As mentioned above, the original package was probably a plain paper bag. Some of the Davis Mill Co. letterheads, dating as far back as 1897, carry a reproduction of an early red carton, printed in black and white, which carried the first Aunt Jemima illustration and the product name, with a statement that the preparation was for making "griddle cakes, muffins and gems." Some of the copy around the top and bottom of this package continued from panel to panel, so that the package had to be revolved to read it.

The earliest Aunt Jemima package on which definite records are available was a 1-lb. sack printed in red and black. Later, this same design was used on a package which was retained until 1916, when America's leading illustrator of Negro characters, A. B. Frost, was called in to create a new and kindlier Aunt Jemima design. From that date on, Aunt Jemima Pancake Flour has always appeared on grocery shelves in bright four-color packages, with a red background for the regular pancake mix and a yellow background for buckwheat mix. The package with the Frost illustration was employed successfully for 20 years, or until 1936.

At that time, Quaker Oats decided that modernization was again in order. Accordingly, Haddon Sundblom, a prominent illustrator, was commissioned to produce an oil painting of an attractive, smiling Negro woman to serve as the modern Aunt Jemima trademark. His oil painting is reproduced today on all packages and bags bearing the Aunt Jemima brand and in all Aunt



ONLY EXISTING PHOTOS of Mrs. Nancy "Aunt Jemima" Green, the famous first demonstrator, appear on these passbooks used at Pan-American, Columbian and Trans-Mississippi expositions, where she baked and distributed millions of pancakes. Columbia passbook (center) bears gold medal awarded to "Aunt Jemima" at Chicago fair.

give substance to the legend of 'Aunt Jemima'



Gray dawn

A Southern officer and his adjutant, separated from their men, came to Aunt Jemima's cabin one morning, tired and discouraged. The officer never forgot the delicious pancakes she served and later told friends in the milling business about them.



The visitors from the North

The officer, now in civilian clothes, and his friends from the milling concern visited Aunt Jemima's cabin after the war was over, to buy her famous recipe and to persuade her to return to the North with them and supervise the manufacture of pancake flour bearing her name.



Aunt Jemima leaves her cabin for the North

The three men finally were successful in inducing Aunt Jemima to sell her remarkable pancake formula and go North with them to supervise its production. She left her old home for a new adventure in pancake making.

Jemima advertising. Judging by her portraits, Aunt Jemima has carried her age extremely well; in fact, she has grown increasingly attractive with time.

In 1944 a leading package designer was commissioned to carry out further modernization and "cleaning up" of the label which was effected in 1946. On his recommendation, the Aunt Jemima portrait by Haddon Sundblom is now used on brighter red and yellow backgrounds of the four-color lithographed label. In addition, legibility of the lettering has been improved and other modifications designed for better shelf visibility have been made.

Today's package, as it has for many years, consists merely of a glue-end chipboard carton and the brightly printed tight-wrap label. No liner is required. Quaker Oats forms its own cartons, using board made in its own mill at Pekin, Ill.

To supply the demand for Aunt Jemima pancake mixes, the company produces and packages these items at four plants, located in St. Joseph, Mo. (site of the original Davis plant); Akron, Ohio; Cedar Rapids, Iowa, and Sherman, Tex.

Filling equipment for both the 20-oz. and 40-oz. cartons, on high-speed packaging lines, includes a new "telescoping volumetric" type of filler capable of speeds as high as 100 packages per minute. These units raise the unlabeled cartons onto the filling tubes and lower them in a smooth, continuous operation, achieving a pouring rather than a "dumping" effect. The design of this equipment renders it completely dustless in operation and insures a high degree of accuracy in the fill, according to Quaker officials.

In addition to the 20- and 40-oz. consumer cartons, Aunt Jemima Ready-Mix for pancakes and buckwheat cakes are now packed in 3 1/2- and 5-lb. paper bags for

larger users. The pancake mix is also available in a 9.8-lb. bag on the West Coast.

While Aunt Jemima is commonly thought of in terms of pancakes or buckwheat cakes, there are a number of other widely distributed products on which the familiar trademark appears. These include flour, cornmeal and grits and, recently introduced in certain markets, other Aunt Jemima Ready Mixes—for Devil's Food and Silver Cake, Corn Muffins, Oatmeal Muffins and Gingerbread. Packages for all these products were created by the same designer who last modernized the pancake mix packages.

Premium promotion

Almost from the beginning, premiums have played an important part in the Aunt Jemima merchandising operation. Millions of American children have played with Aunt Jemima dolls. Records indicate that the first Aunt Jemima doll—apparently a paper cut-out—appeared about 1895. In 1905 a rag doll was offered as a premium for either a box top or a coupon and 4 cents; this from the start was one of the most highly successful premiums in merchandising history. Shortly after 1905 the Aunt Jemima rag doll family—including, in addition to Aunt Jemima, Uncle Mose and the young twins, Diana and Wade—was offered for 16 cents and four coupons. Now formed of brightly printed vinyl plastic sheet material, the dolls continue to be one of the product's most popular premiums. They have been featured for years in national magazine ads.

Apparently, the syrup pitcher premium—a plastic Aunt Jemima replica of brightly colored polystyrene, whose head is hinged on to permit convenient pouring—was the first to be mentioned directly on the Aunt Jemima label. This practice is now followed regularly.

PREMIUMS have always been an important part of Aunt Jemima promotion and nearly always are in trademark form. Three of the most popular are shown in left photo, together with packages that offer them. Over the years, Aunt Jemima's family has expanded to include "Uncle Mose" and—in the rag doll family—their two children. Jack-in-box package, right, is used by salesmen to emphasize sales appeal of salt-and-pepper-shaker offer. Molded premiums are of polystyrene.





IMPROVED FILLER (left) of telescoping volumetric type gives accurate, dust-free, high-speed packaging in Aunt Jemima plants. At right, finished packages are moving from tight-wrap labelers to cartoning and carton-sealing machines.

with a brief "balloon" about the premium printed directly below the Aunt Jemima portrait with an arrow leading to details of the offer on the side panel.

One of the newest Aunt Jemima premiums is a set of polystyrene salt and pepper shakers, molded in the image of Aunt Jemima and Uncle Mose. Standing approximately 5 in. high, they make a particularly clever and useful table accessory and preliminary response indicates they will have a successful "run."

Many other successful premiums have also been offered in connection with the product through the years; the above are singled out for mention because they tie in directly with the trademark on the package and with the living counterparts in the persons of the "Aunt Jemimas" who conduct demonstrations.

Sales and advertising

The sales volume on Aunt Jemima pancake flour and buckwheat flour has increased approximately two and one-half times since The Quaker Oats Co. acquired the Aunt Jemima Mill Co. in 1925. Advertising expenditures on behalf of the product have increased in approximately the same proportion. If all Aunt Jemima products are included, the volume increase is, of course, considerably greater than that stated.

The product has always been vigorously advertised and merchandised in a variety of media. Aunt Jemima Pancake Flour was one of the first cereal products to be nationally advertised on billboards and in news-

papers. Today, Aunt Jemima appears on nation-wide radio programs and her famous pancake mixes are advertised in hundreds of newspapers, Sunday supplements and magazines.

The "ready mix" field pioneered by Aunt Jemima has recently mushroomed into big business indeed—and the end is not yet in sight. The *Wall Street Journal*, on Oct. 29, 1947, reported over 200 manufacturers in the field.

John A. McWethy, who authored the *Journal* article, referred to Aunt Jemima as the pioneer pancake mix and called it "by all odds the country's biggest selling pancake preparation." He estimated 1947 sales of all makes of pancake flour at an all-time high of between 250 million and 300 million pounds.

"Baking mixes are going over with housewives for the same reason canned baby food and electric irons did," declared the manager of product development for a large Chicago food firm in the *Journal* article. "All three emancipate women."

It is strikingly fitting that Aunt Jemima, born of the legend of an emancipated slave, should have pioneered this great new field of packaged products with a package that stands today, as always, as a model of good promotion and merchandising.

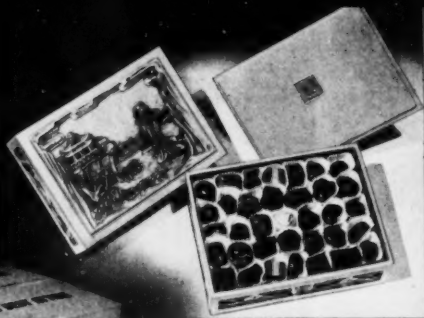
CREDITS: Current label design, Jim Nash, New York. Filling equipment, J. L. Ferguson Co., Joliet, Ill. Wrapping machine, Stokes & Smith Co., Div. of Food Machinery & Chemical Corp., Philadelphia. Labels are printed by a number of undisclosed suppliers.

ENLARGED FAMILY of Aunt Jemima products now includes these items in addition to the two pancake mixes. Note effective use of the priceless trademark on each of these packages.

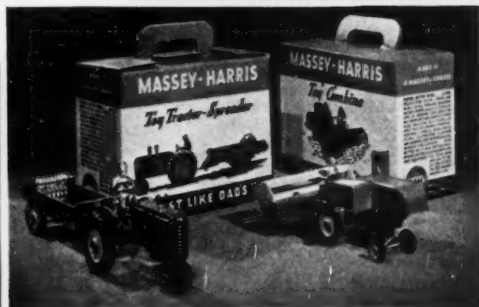




MODERN



3



5



4



6



PACKAGING PAGEANT

1 The familiar "Mr. Sylvania" emblem long featured in the company's advertisements now appears on each side of the newly designed shipping cartons used by Sylvania Div., American Viscose Corp. The cartons are designed to hold either 10- or 12-in.-wide rolls of cellophane and are printed in two colors. Containers developed by Container Corp. of America, Chicago.

2 The unusually realistic effect of hand carving on new Chinese plastic chests adopted on an exclusive franchise basis by Loft Candy Co., New York, is said to be achieved by deep undercutting which is possible when boxes are made of modified polyester plastic, using flexible rubber molds that leave no seams or flash marks. The two-piece boxes are made in antiqued ivory, red, green or yellow. Molder, Ivorine Art Craft, Inc., New York. Modified polyester material, Marco Chemicals Co., Sewaren, N. J.

3 For the first time in several years, U. S. Tobacco Co. has returned to the use of specially designed holiday-gift cartons for 1-lb. cans of smoking tobacco. The Old Briar and Model brand cartons are fine-screen processed in four colors; the Dill's Best cartons are printed by letterpress also in four colors. All are made of clay-coated board and varnished. Fidel-i-tone process and letterpress printing, The Lord Baltimore Press, Baltimore, Md.

4 Ehlers, Lord Calvert and Boscul brand coffees are appearing in duplex bleached kraft and Pliofilm bags of self-opening, flat-bottom construction, said to provide a tight seal and to stand up better for automatic packing and on the shelf. Bags, American Bag & Paper Co., Philadelphia. Pliofilm, The Goodyear Tire & Rubber Co., Akron, Ohio.

5 These farm-machine toys, packaged in a patented, one-piece corrugated container with luggage-type carrying handle, are marketed by Massey-Harris, Racine, Wis., farm implement manufacturer, through its distributors to impress "future farmers" with a famous brand name. Printed in three colors, the container side panels feature illustrations of the toys for display interest. There is a brief institutional sales message on the end panels. Containers, The Hinde & Dauch Paper Co., Sandusky, Ohio.

6 Novelty die-cut cartons which can be transformed into toy trains have been designed for Christmas tree "bubble" lights made by U. S. Electric Mfg. Co. Copy on the bottom of the four-color cartons tells how to make the toys. An electrical plug fits into a hole in the die-cut inner platform so the lights can be tested or turned on for displays. Design, Gerald Stahl, New York. Cartons, Blum Folding Box Co., Brooklyn.

7 Standard Brands has modernized its whole family of Royal Gelatin Dessert packages by giving increased prominence to illustration and the Royal name, providing more legible direction copy and improving color appeal. Side panels are used for promotional copy and cross selling. Economies in board usage were effected by shortening end flaps. Designed in collaboration with Raymond Loewy & Associates, New York. Cartons, Gilford Folding Box Co., Baltimore, Md.

8 Further improvements in cereal packaging are indicated by the appearance of General Foods' Post cereals with new color-printed, wax-coated protective overwraps. A "guaranteed fresh" copy patch on the packages calls attention to the increased protection.

9 To assure its customers that the carefully controlled moisture content of its bowling pins is preserved up to the time they are first used, The Monumental Bowling & Billiard Corp. wraps each pin in a moisture-proof cellophane bag. The feature is explained in copy printed in two colors on the satchel-bottom bag. Bag, Shellmar Products Corp., Mt. Vernon, Ohio.

10 Brand name, color and a significant sales feature—"colors scuffs"—are played up in the new, modern, streamlined design of Barton Mfg. Co.'s shoe-polish box. The metal container opens and recloses with a simple quarter-turn. "Amerseal" box, Anchor Hocking Glass Corp., Lancaster, Ohio.

11 To promote Puerto Rican rum during the Christmas holidays at the point of sale, the Puerto Rican Industrial Development Co. has made available to the trade these green and red printed gift-packaging bags. Favorite rum recipes are printed on the back of the 35-lb. white kraft single-construction automatic bags. Bags, Union Bag & Paper Corp., New York.

9

11

10





SIMPLIFICATION of new package is illustrated by contrast, in background, of single boxes and packing material previously used to package the same 18 thermometers. Now platform with buffer ends and perforated vertical spacers permits six thermometers to a box—packaged safer, more economically and conveniently, with modern, up-to-date display value and identity.

Boosting the thermometer

SCIENTIFIC INSTRUMENTS TOO CAN BENEFIT FROM PACKAGE MODERNIZATION,

AS THE EXPERIENCE OF A 180-YEAR-OLD MAKER ILLUSTRATES

Back in 1615, Francisco Sagredo was busily experimenting with a kind of crude thermometer which he had derived from earlier models made by Galileo. When the great mathematician heard Sagredo had developed the instrument sufficiently to be able to measure the temperature of mixed snow and salt, he wrote, asking Sagredo to send it along for his inspection. Sadly, Sagredo replied that the instrument was too bulky and fragile to pack and send. Instead, he wrote out instructions, suggesting Galileo make one himself.

The etched-stem thermometers used in industrial and scientific research laboratories today are no longer clumsy. They are, however, precision instruments of fine workmanship and, as such, require great care in packing and shipping.

The experience of the C. J. Tagliabue Corp., Newark, N. J., maker of high-quality thermometers for more than 180 years, indicated the thermometer packages in general use needed to be improved. With slight exceptions, few changes in the style of package, manner of wrapping, filling and shipping had been made for many years.

It seemed to the Tagliabue sales force that the con-

ventional packages, based upon the old-line practices of wrapping and boxing thermometers individually, had several disadvantages. Packing singly made costs high per unit of sale; despite manual wrapping and filler materials used for cushion, the packages provided imperfect protection and the ratio of breakage was relatively high; shape and dimensions of the containers did not lend themselves to convenient shelf storage or stocking; it was difficult to mark vital range and catalog information on the container clearly; customers found it tedious and awkward to unwrap, inspect and replace thermometers; the product was hidden in wrappings even after the package was opened, resulting in a negative display value; the exterior designs were unattractive and had low sales appeal.

The Tagliabue advertising department got busy. Field representatives, dealers and large users were queried. Suggestions received were added to the list of desirable improvements to be made. The result was a modern, practical, attractive package that may well set a precedent in progressive merchandising in this field. Patents on this package are now pending.

The package complete consists of five units: cover

and body of telescoping set-up box, a removable platform-insert and two U-shaped vertical spacers. The platform proper extends the entire length of the box and is made from one piece of scored stock, characterized by a self-forming step at each end. The steps are scored and can be bent out of the way to permit removal or replacement of thermometers.

The two U-shaped vertical spacers with die-cut elliptical holes are inserted from beneath the platform and protrude through two pairs of lateral slots.

Thermometers are passed through aligned holes in the double uprights formed by the vertical spacers. They rest upon and are supported by the platform. Lateral motion is prevented by the spacers; longitudinal thrust is confined and absorbed by the buffer steps. Shoulders on the spacers support the platform from the under side at the slots and hold the spacer in place in relation to platform and bottom of the box.

This method of rigid support and cushioning of multiple numbers of thermometers within a single package made possible the abandonment of the costly single-thermometer package. Investigation showed that customers for this type of thermometer usually bought not less than three at a time and more often six or a dozen. Accordingly, the new package is made in two different sizes, to hold either six thermometers or three thermometers.

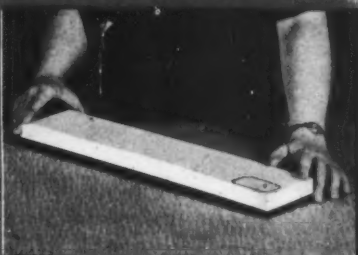
During the period of experimenting with and designing the new package, two problems were encountered which arose from the nature of the product itself:

1. The filling, usually mercury, made thermometers heavier at the bulb end and produced unequal stress;
2. The large number of different sizes and varieties of thermometers made it difficult to achieve a basic design of fundamental package (Continued on page 192)

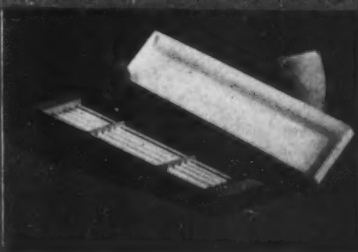
IDENTIFICATION of brand on the new six-thermometer boxes is striking improvement over the former plain single boxes. "Tag" is common abbreviation of Tagliabue. End label, which wraps around end and bottom, serves as a seal.



TECHNIQUE FOR THE USER



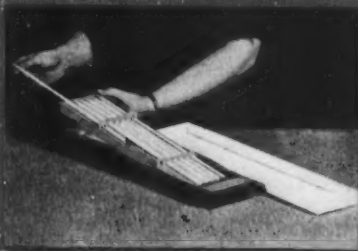
LABEL IS SLIT AT END OF BOX



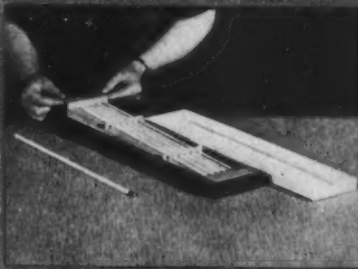
TELESCOPING BOX COVER REMOVED



PLATFORM INSERT LIFTED CLEAR



STEP DROPPED, THERMOMETER OUT



PLATFORM GOES BACK TO THE BOX

4 out of 5 choose oranges in



Attractive — eye-appealing

Keeps oranges fresher and juicier longer

Strong, durable, tear-resistant

Holds more, increases unit sale

In a month's test in fifteen big super-markets, four out of five shoppers bought oranges bagged in transparent re-usable Pliofilm — in preference over fruit packed in other containers.

Similar results are being obtained on apples, onions, potatoes and other bulk produce packed in these handy new Pliofilm super-market bags.



Pliofilm — T.M. The Goodyear Tire & Rubber Company

these sturdy Pliofilm bags!

Transparent—customers see what they're getting

Fast-moving—no picking and choosing

Light, sanitary—washable for home re-use

Easily used on automatic bagging machinery

Test points way to sales increases on all types of bulk merchandise

Here's a tip for speeding up sales and turn-over on all bulky produce that is difficult to package and display attractively.

Just as experience proves oranges, apples and other produce sell faster in Pliofilm, so will other products.

The reason is simple. In Pliofilm, people can see what they're getting. It keeps edible products fresher, tastier; can be washed and re-

used to keep vegetables, cheese, meats and other food items fresh for days longer. It stands up in shipment—isn't affected by weather.

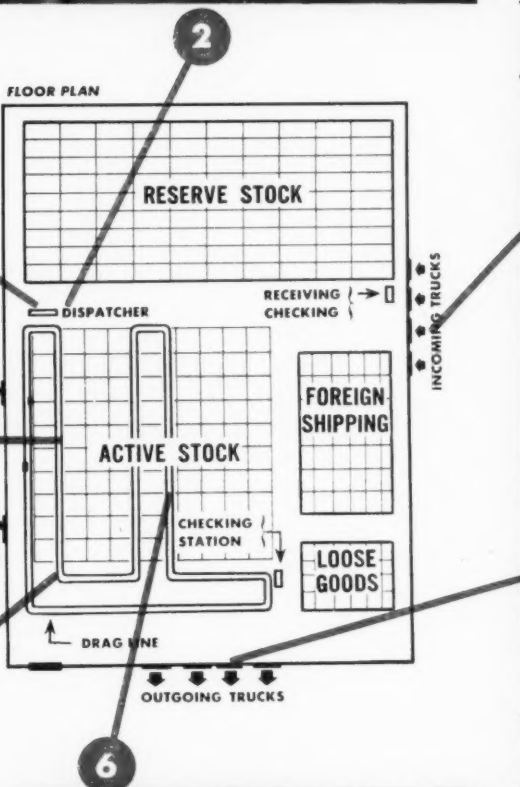
Available in many shapes and sizes

Plioform produce bags can be supplied in any form or size to meet your need. If you have a packaging problem, let us recommend the right type of Pliofilm sales-boosting package. Address: Goodyear, Pliofilm Dept., Akron 16, Ohio.

Good things are better in

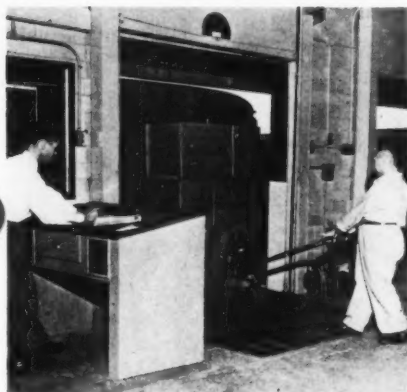
Plioform
3-way protection against air, moisture, liquids.





Automatic warehouse

J & J SHIPPING CENTER USES UNIQUE PACKAGE-HANDLING TECHNIQUES



COUNTER-CLOCKWISE, THE PICTURES show (1) the palletized packages being checked and earmarked for warehouse location as they are received from the manufacturing plants nearby; (2) the hand-operated label applicator being loaded with pre-addressed shipping labels at the dispatcher's desk; (3) the order-assembler receiving the loaded label applicator and the list of quantity and stock-location numbers from the dispatcher; (4) the assembler stopping the drag-line truck at a loading point by lifting the pin that hooks it into the continuous sub-surface drag-line; (5) applying the shipping labels to packages before lifting them to truck; (6) a filled whole-lot order ready for checking on the truck while still in the active-stock area; (7) loading orders into the delivery trucks directly from the drag truck.

In the new \$2,500,000 Johnson & Johnson shipping center near New Brunswick, N. J., trucks mysteriously follow order-assemblers around, stopping when they stop and waiting while packages are piled on.

An underground continuous drag-line system, to which the four-wheel trucks are hooked and unhooked at will, is only one of the unique features of this huge, single-floor, almost-automatic warehouse, covering 207,000 sq. ft., which is undoubtedly the most advanced thing of its kind in the country. An order calling for hundreds of different packaged items—gathered in this ultra-modern building from the various ultra-modern J & J manufacturing plants in the same area—can now be assembled and shipped within a matter of hours, whereas previously it often took several days.

In addition to the drag-line trucks, other time-saving devices (all the invention of Ernest F. Leger, J & J's general traffic manager) are a hand-operated label applicator by means of which an addressed shipping label is applied to each package by the order-assembler as he picks it up and a motor-driven dock-board to span the gap between truck and loading platform. As the merchandise is received from manufacturing plants by truck, it is checked in and assigned to a location in the order-picking area, as indicated by an especially designed locator board.

As an order is received it is coded and shipping labels are prepared and inserted in the hand applicator. The dispatcher hands the order-assembler the applicator and a sheet on which is listed the number of cartons or cases called for and the stock location numbers in the order in which they will be reached on the drag line, which winds in and around the order-picking area.

As the assembler and his truck reach each point at which cartons are to be picked up, he disconnects the truck from the drag line either by lifting a pin at the front end of the truck, or merely by kicking the front bumper. He applies the labels to the cartons, loads them on the truck and reconnects to the drag line. The line moves slowly and for a momentary stop no disconnection is necessary. At the end of the drag line, the truck is removed from the line and the order checked. The truck then is reconnected and moves to the outgoing side of the building, where the packages are transferred either to vans or freight cars.

There are 50 of the drag-line trucks—appropriately nicknamed "Fido"—each with a capacity of more than 4,000 lbs., although the average load is about 900 lbs.

CREDITS: Label applicator, Standard Register Co., Dayton, Ohio. Drag-line installation, Jervis B. Webb Co., Detroit. Drag-line trucks, Standard Pressed Steel Co., Jenkintown, Pa.



NEW CARTON, replacing paper bag, uses no liner or overwrap, has strong blue and yellow colors, powerful appetite appeal. The little-known brand, Peach Blossom, is dropped in favor of better-known company name.

Better salesmen STRICTLY MODERN PICTORIAL CARTONS MOVE

CENTENNIAL PRODUCTS OFF THE FLOUR RACK INTO THE MIX CLASS

New forms of consumer packages bearing colorful new designs are the key to an enlarged merchandising program for two of the grocery products of Centennial Flouring Mills Co., Seattle.

The products are Pancake and Waffle Mix, and Cake Flour. They are part of the Centennial line distributed in Washington, Oregon, Idaho and Montana. The new packages moved onto grocers' shelves in November.

For years, Centennial has distributed these products in paper bags in 2-, 4- and 10-lb. sizes. When the company studied its postwar markets and the opportunities for expansion, it came up against a packaging problem. A consumer survey, for example, showed that Centennial's 4- and 10-lb. sizes were leaders in the field, but in the 2-lb. size the company ranking fell off sharply.

The paper bag, satisfactory for larger packages, seemed inadequate for the 2-lb. size. It was apt to be placed flat on the shelf and thus did not get proper display. Also, retailers often stacked the paper package on the flour rack, rather than on the store shelves along

with prepared and boxed mixes, where it belonged.

Out of these studies came the decision to adopt a new type of package in place of the 2-lb. paper bag. The package would have to meet two prime requirements: better shelf display and better product illustration, with emphasis on appetite appeal.

The new package also had to be economical for a regional milling company—one that ranked with the largest in its area, but did not distribute nationally and could not therefore justify the outlay for packaging equipment that a national distributor might use.

For shelf display, Centennial chose a glue-end shell carton holding 2½ lbs. This was selected both for the pancake and waffle mix, and for the cake flour. Then Centennial worked out with the carton manufacturer a plan to use this package without inner lining or overwrap. Instead, a white patent-coated news stock was used for the carton, with four-color printing directly on the carton.

The carton is printed at the supplier's plant in Seattle

and shipped flat to Centennial's Spokane mill, the long-edge seam pre-glued. Centennial then sends the blanks through conventional automatic machinery that (1) sets up the carton and seals the bottom flaps, (2) fills the package by weight and (3) seals the top. The glue area, top and bottom, is 2 in. wide. With care in manufacture, Centennial believes it has a package almost completely siftproof and entirely satisfactory without outer wrap.

Economy was an important consideration in the choice of a glue-end carton with direct printing, since this spares the company the expense of new equipment for a tight wrap. Against the saving in wrap is the somewhat higher expense of container stock of a quality suitable for four-color printing.

The design for each package is built around a large product illustration that bleeds off the edge—a full-color reproduction of a delicious food, ready to eat. Family resemblance for the products is maintained, though each stands on its own.

The cake-flour package completely abandons the company's traditional package color scheme of turquoise blue and white. In place of this, a bold, deep, blue and yellow are the predominant colors. This shift recognizes that Centennial Cake Flour has not had as much promotion nor become as well established as some of the other products in the company's line. In contrast, the pancake and waffle mix, long a leader, holds more closely to the conventional Centennial colors. Here the design now carries a touch of the turquoise

blue, to which are added red, yellow and deep blue.

Each package has only one color not found on the other. Three of the colors are identical on the two packages, facilitating quick runs of the two containers and thus providing more flexible operation. A 100-line screen is used in printing, providing unusually fine results on untreated stock. The printed cartons are varnished.

The trade name, Centennial, was re-lettered, changing from an old-fashioned type to modern, sans serif design. Each package carries the name in bold red.

The previous name, "Pancake and Waffle Flour," has been changed to "Pancake and Waffle Mix," recognizing that the product is, in fact, a mix. Each package carries four recipes. The suggestion is included that the consumer write to Celia Lee, Centennial's home economist, for a recipe book. End panels of the pancake and waffle package contain cross-reference selling for other products in the Centennial line.

Before the final designs were chosen, tests were made with groups of consumers at Seattle, Spokane and Chicago. In all, 42 designs were presented to the panels. William A. Kaufmann, sales manager, grocery products division, handled the development for Centennial.

Consumer advertising featuring the new packages accompanied the introduction to the retail trade.

CREDITS: Cartons, Container Corp. of America, Chicago. Filling and sealing equipment, Pneumatic Scale Corp., Ltd., North Quincy, Mass.

PANCAKE MIX carton holds closely to color scheme of well-known bag package, but with new standard trade-name lettering, better legibility throughout, greater appetite interest. Cartons hold $\frac{1}{2}$ lb. more than bags.





Twelve varieties of Necco confections manufactured by the New England Confectionery Co., Cambridge, Mass., can be displayed in this sturdily constructed merchandiser. The compact self-serving counter unit takes up a minimum of space and is designed to boost impulse purchases. Full-color lithographed, the display gives prominence to the Necco name and trademark. Display, Forbes Lithograph Mfg. Co., Boston, Mass.



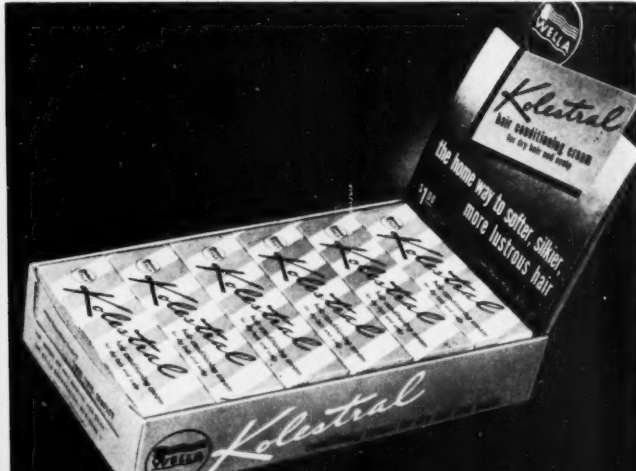
A new approach in the merchandising of car polish is represented by this smartly designed display and container for "Carecare," recently introduced by the Cannon Chemical Co., Cambridge, Mass. The top-hat display, the square jar and modern label have an elegance usually associated with cosmetic packaging. Display, Buck Printing Co., Boston. Jar and cap, Hazel-Atlas Glass Co., Wheeling, W. Va. Shrink-type closure, Armstrong Cork Co., Lancaster, Pa.



DISPLAY

As an aid to liquor-store customers in making holiday gift selections, Park & Tilford Distillers, Inc., is supplying dealers with this two-bottle display piece that holds a supply of their Holiday Shopping Guide booklets containing a check-list of liquors and wines. Two die-cut circular pieces on each end of the colorful display piece fit over the necks of two bottles. The free booklets rest in a center tray. Display, Parish Press, Inc., New York.

The Wella Corp. of New York, which for more than 15 years has been marketing its Kolestrol hair conditioner for professional use in beauty salons throughout the country, is now introducing the product in consumer-sized units for over-the-counter sale in drug and department stores. A neatly designed display carton printed in pink and black is used to place the product before the consumer. Each display holds 12 individual cartons, which are contrastingly designed with pink and white candy stripes. The product is packaged in a collapsible tube, also designed with the pink and white candy stripes. Price of the product is prominent on the riser piece of the display carton. Display carton and individual cartons, Bell Box Co., New York.





The fire-fighting scene lithographed on this counter dispenser is appropriate for a premium package housing Tek Hughes "5-Alarm Siree-e-e" tooth brush for children. The whistle-siren is fitted to the closed end of a conventional plastic brush container. Display, Consolidated Lithographing Corp., New York. Container of Eastman Tenite II, Extruded Plastics, Norwalk, Conn.



Globe-Wernicke Co., simplifies stock-keeping and selling for the stationer by pre-packaging as single units all the materials for its one-drawer Safeguard and Standguard files in paper-board display containers. An inclined platform makes every item visible when lid is folded back. Design, Donald Deskey Associates, New York. Display case, Hankins Container Co., Cleveland.



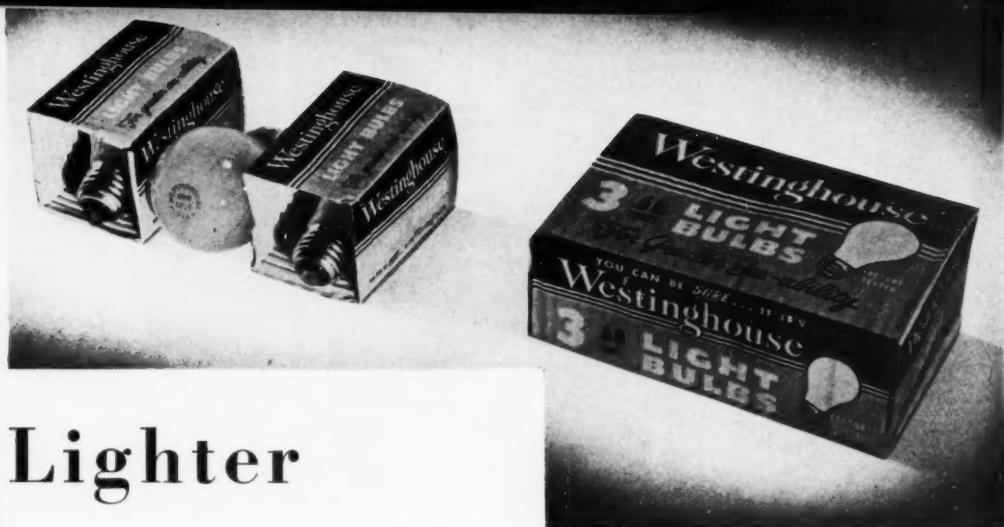
A silhouette of Mary Martin, star of the musical show, "South Pacific," is featured above the tag line, "I'm In Love With a Wonderful Brush," in a lithographed counter display stand for Jewel-ite "Stimulator" hair brushes. The sloping stand simulates grained wood. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

GALLERY

Clear product illustration and suggestions for its use are always essential elements of well-designed packaging for hardware merchandising. These factors prompted the clear, simple and forceful design of the new display cartons for the "Strike-Rite" cabinet catch marketed by The Stanley Works, New Britain, Conn. Stock information, quantity and trade specifications are all prominently incorporated as an integral part of the design to aid the retailer as well as the customer in making his selection. Design, Gerald Stahl Associates, New York. Display cartons, Manufacturers Box Co., Bridgeport, Conn.

Visual demonstration to show how a product operates is cleverly employed in this motion display presenting the waterproof and self-winding features of Mido watches. The silk-screened, pressed-wood hand makes an arc, dipping into the molded polystyrene tank, resting on wood base. An electric motor propels the hand. Lacquered plywood back piece is silk screened in three colors. Display, Copeland Displays, Inc., New York.





Lighter light bulbs

WESTINGHOUSE'S 35-YEAR HISTORY SHOWS

THAT EVEN MOST DELICATE PRODUCTS CAN BENEFIT FROM JUDICIOUS

PACKAGE-SIMPLIFICATION STEPS. By Harold Amatel* and Albert Brann†

One of the most spectacular indexes of the development of the ordinary household light bulb is the manner in which it has been successively packed for shipment to the consumer over a period of approximately 35 years. Fragile and tender in its early stages, like a baby, the tungsten filament incandescent light bulb had to be coddled and protected from rough physical treatment. Later, as it gained strength and maturity, one protective packaging agent after another was discarded until the present-day method of packaging was reached. Successive measures taken in simplifying this packaging have added their influence to reducing the cost of light-bulb production and distribution and have made it possible to pass these gains on to the public in the form of one of the most valuable, yet least expensive, home appliances.

In the beginning, light bulbs were so fragile that they were wrapped in cotton wadding and then tucked into an individual paper carton. The cartons were then packed into an ordinary wooden box which had been lined with a 2-in.-thick layer of excelsior. This case, in turn, was suspended by means of spiral bed springs inside a much larger wooden box. These elaborate protective precautions were taken to absorb those ever-present and bothersome transportation nuisances—shock and vibration.

Later, ropes replaced the spiral springs and, as the bulb strength quickly improved, these expensive and clumsy crutches were as quickly discarded. It might be of interest to observe that, during this period, the lids of the wooden boxes were closed by means of screws, since the resulting shock brought about by hammering in nails would result in damage to the fragile lamp filaments.

The first step in packing simplification was the elimination of the wooden box, which was discarded around 1912. For a substitute, both solid fibre and corrugated paper cases were considered. A corrugated case was finally adopted because this material provided good cushioning which was not obtained so easily with solid fibre. The corrugated box is standard today as the outside shipping container.

With continued improvement in the strength of the light bulb, it was next found possible to substitute an unfaced corrugated wrapper for the cotton wadding. This style of wrapper adopted in 1917 was similar to the wrapper then used extensively in the packaging of kerosene lamp chimneys. Soon the use of the single chipboard carton for each separate bulb was discontinued and a chipboard carton designed to carry five bulbs was adopted. Twenty of these five-bulb cartons were then placed in the corrugated box, snugly cushioned by excelsior (Fig. 2).

There were natural incentives to get rid of the excel-

* Packaging Engineer, Westinghouse Lamp Division, Bloomfield, N. J.
† Manager, Specifications and Standards Dept., Westinghouse Lamp Division.

1. LATEST THREE-PACK, with only two of the bulbs placed in sleeves, reduces packaging to a safe minimum, is favored by retail dealers.

sior as a packing material: it carried with it a fire hazard, it littered the factory and warehouse floors, it was dusty, it offered little resistance to the crushing of packages when stacked and the size of the case was objectionably bulky.

Corrugated wrapper

To meet this situation, an entirely new style of bulb wrapper was developed that provided the same cushioning effect given by the excelsior. Experiments indicated that a rolled type of wrapper, consisting of a single-faced corrugated sheet tucked in at the ends (Fig. 3) would provide the required protection. Since this style of wrapper was new to the packaging industry and could not be made with existing wrapper manufacturing equipment, all these experimental wrappers were made on an inexpensive, makeshift machine. So much promise did this type of wrapper show in package drop and shipping tests that it was decided around 1919 to adopt it. In addition to obviating the fire hazards and the general untidiness connected with the use of excelsior, the new wrapper was so much less bulky that it resulted in a 33% decrease in

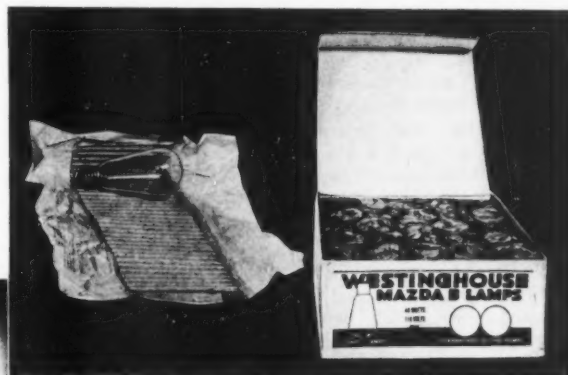
required warehouse space; a notable gain was also made in the weight of the package.

With this package, light bulbs were packed in trays, 25 bulbs to a tray. From a dealer's standpoint, however, this type of tray packing was not too satisfactory, as it did not lend itself to simplicity in shelf stacking, being too large and too clumsy. This challenge for something better was met successfully by the introduction in 1921 of a six-bulb carton which had a special innovation in the form of a vending flap (Fig. 4). This simple, neat, six-bulb carton won immediate trade approval. With the advent of the six-bulb carton, the shipping quantity was changed to 120 from the previous 100 that had been used when the five-bulb package was standard.

As time went on, more experience was gained in manufacturing and merchandising the light bulb—a sturdier product was developed and more precise re-



2. EARLY PACKAGE of 1917 used unfaced corrugated sleeves, like lamp chimneys, but approached the modern idea in packing five bulbs to a carton. Excelsior-and-corrugated shipping pack was a big improvement over original wood box-within-a-box, suspended by bed springs, which was discarded around 1912.



3. SAFETY WAS ADDED in 1919 by roll-type wrapper, with paper tuck-in to hold bulb in place and eliminate hazardous excelsior in shipping.



4. DISPENSING-TYPE display package adopted in 1921 showed an early concern for retail dealers' merchandising requirements. The tuck flap pulled out and folded underneath the carton.

quirements respecting packing material were demanded by dealers. As bulb strength kept improving, packing and shipping tests indicated that the rolled type of wrapper could safely be replaced by a square, sleeve-type, open-end wrapper (Figs. 5 and 6). This wrapper, adopted in 1925, was a time saver to the dealer. He could read the marking on the bulb and test the bulb in an electric socket without having first to unroll the wrapper in order to get the bulb. Furthermore, this advanced style of packing proved to be a real advantage in lamp manufacturing because, being easy to handle, it accommodated steadily increasing speeds of mass production.

To further simplify the packing material and to aid the dealer, an open-end corrugated carton (Fig. 6) was substituted for the closed chipboard carton in 1929. This open-end carton offered satisfactory shipping protection and was an improvement in vending characteristics, since the bulbs were more accessible on the dealer's shelf. This method of "inner" packing—using open-end, single-bulb wrappers and open-end, six-bulb cartons—has been in use for a number of years and is standard today.

By 1929, packing methods had become so stabilized and standard that no changes of any consequence were made until 1949, when a carton holding three light bulbs instead of six, recently developed by Westinghouse, was placed on the market. The three-bulb carton (Fig. 1) partly meets the fundamental concept that the dealer would like to receive his goods unpacked, or at least with a minimum amount of packing material. Furthermore, this new carton with only two of the three bulbs wrapped in the usual open-end sleeve has been accepted enthusiastically by the trade as an easy-to-sell and easy-to-carry package suited for present-day merchandising. It uses a minimum amount of packing material and provides a neat—almost dainty—salable package of a unit size attractive to most purchasers.

Most of the foregoing discussion has dealt with the

"inner" packing of light bulbs. However, coincident with changes in the "inner" packing have come changes in the "outer" packing, i.e., the shipping case.

Outer packing

As mentioned before, the present-day shipping container is made from corrugated paper.

Corrugated box manufacturers for years had fabricated boxes from a liner board known as jute (a misleading term, since waste papers, not jute, were principally used). However, when a new type of board began making its appearance on the market, known as Fourdrinier kraft (made of 100% Southern pine), it was soon noted that a box made from the Fourdrinier kraft weighed less than a box made of jute. This advantage was naturally of interest in view of the fact that transportation charges are figured on a weight basis. Investigation, therefore, of the merits of the Fourdrinier kraft outer container resulted in its adoption in 1931.

The use of the kraft outer container proved so satisfactory, especially in view of its many strength advantages, that consideration was given to the possibility of reducing the thickness of the liner boards which had been 0.016 in. thick in the "jute" box. As the standard corrugated medium is 0.009 in. thick, it was desirable to try to manufacture a box with liner boards also of this thickness. Boxes with the thinner liners were made up and after numerous tests had been conducted, with the permission of the railway freight authorities, large shipments of the bulbs were made with this style of box. The results were so meritorious that the lightweight Fourdrinier kraft outer container, as used today, was finally adopted.

The experience of the light-bulb industry may well serve as a guide to many manufacturers packaging light, delicate, shock-susceptible products.

CREDIT: New Westinghouse three-bulb package supplied by Hankins Container Co., Cleveland, Ohio.

5. STURDIER BULBS enabled a return in 1925 to open-end sleeves, with paper facing and tight-fit construction holding bulbs in place.



6. OPEN-END principle was extended to the six-pack carton in 1929, as tests showed that improved materials made this a safe cushioning pack. This was standard light-bulb pack until recently.



11th Annual Forum of The Packaging Institute

Hotel Commodore, New York, Oct. 24-26, 1949

Six hundred and seventy-seven registrants attended the 11th Annual Forum of the Packaging Institute and the First National Conference on Pre-Packaging, held jointly at the Hotel Commodore, New York.

According to available records, a new high for Institute attendance may have been set, but the picture is confused because there was no clear-cut division between the two meetings. Of the 677 registrants, 162 indicated primary interest in the pre-packaging sessions, another 36 said they were interested in both meetings and 140 failed to express a preference. The total registration compares with 508 last year, 464 in 1947 and the war-time high-water mark of 557 that was reached in 1943.

There is no way of knowing what the attendance would have been had the Institute met separately as in the past. But there was general agreement among those who attended that the program was soundly organized and well conducted, judged by previous standards. It seemed to be the consensus that if the Institute had not solved all its problems, the situation was at least hopeful.

Out of the pre-packagers' meeting there grew, as expected, a definite plan for an organization, tentatively known as the Produce Pre-Packaging Assn. Details of the organization plan and a report of the conference sessions appear in a special section starting on Page 127.

The Institute Board of Directors indicated faith in the present administration by re-electing the entire slate of officers: Charles L. Barr, F. B. Redington Co., president; Charles O. Kendall, E. R. Squibb & Sons Co., vice president; Henry W. Stevens, Benj. C. Betner Co., vice president, and Laurence V. Burton, executive director. New directors added by the membership to the board for a three-year term were: Joel Y. Lund, Lambert Pharmacal Co., a past president of the Institute; R. Chester Reed, Texas Co.; John A. Warren, American Home Products Co.; J. D. Malcolmson, Robert Gair Co.; A. F. Wendler, E. I. du Pont de Nemours & Co., Inc., and Carl E. Schaeffer, Stokes & Smith Co. (re-elected). Retiring from the board of directors were E. H. Balkema, Colgate-Palmolive-Peet Co.; Karl E. Prindle, Dobeckmun Co.; A. F. Stevenson, The Borden Co., and Lee Hickox, Container Laboratories, Inc.

It was a business-like meeting, the only activities other than the Forum sessions, business and committee meetings being a joint luncheon with the pre-packager guests on Monday, a cocktail party on Tuesday evening and a luncheon on Wednesday at which a report of committee activities was made by Robert de S. Couch, chairman of the Steering and General Activities committees.

The pre-packagers were welcomed to the meeting at the opening joint session on Monday morning by Institute President Barr and a response was made by Paul B. Dickman, Dickman Farms, Ruskin, Fla., who later was elected the first president of the Produce Pre-Packaging Assn. Mr. Barr extended an invitation to the pre-packagers to affiliate with

the Packaging Institute, but at the time the meetings adjourned no decision had been made on that point.

Reviewing the activities of the last year, President Barr pointed to an enlarged scope of technical committee work, organized under the Steering Committee, and an expansion of the Institute's advisory service activities, as evidence of progress. Mr. Barr defined the purpose of the Institute as being to help the producer of packaged products solve his packaging problems, whether technical or non-technical, and emphasized that there should be no conflict in these aims with other technical groups such as exist in the general field of paper production.

Following is a condensed report of the Institute Forum sessions. Remarks of the speakers are in most cases paraphrased, rather than quoted directly:

MONDAY MORNING

Theme Address—Packaging for the Buyer's Market: Quality, Costs and Marketing—L. V. BURTON, executive director, *The Packaging Institute*. The most important packaging problem faced today by all industry is the buyer's market, Dr. Burton said. Quality is a perennially important subject—be the market a seller's market or a buyer's market. Merchandising is too broad a term to cover what the Packaging Institute is presently organized to do; yet certain aspects of merchandising must be included. Cost—i.e., packaging costs—is a "natural" theme; for if there is any one thing that characterizes a buyer's market, it is the incessant demand for lower prices. Packaging costs can run from 15% to as high as 40 or 50% of the total manufacturing expense. Packaging costs are not only an important part of the total manufacturing costs; they are the largest controllable expense.

Last year I talked to you about wasted packaging dollars and gave you 11 case histories where the losses ran from thousands of dollars up to as high as a quarter million in one company. These losses came about because the company lacked compulsory coordination and control of the packaging function. As a result of the emphasis on this lack in so many corporations, several firms have seen the wisdom of adding control of packaging to their executive functions.

We can assume that about 75% of the top executives have come up via the sales route, law and finance, and have had relatively small direct experience with the factors in the production of packaged goods that, added together, give over-all production cost. If it is low enough, this cost either permits a profitable competitive selling price, or may require selling ability of an unusually high order to enable the firm to make a profit. The most desired condition is low production cost of a product that is nearly perfect; that also has an adequate package so that selling costs are also low. This is the route to maximum profits.

The principal protective function of packaging is to protect our goods after they have left the production line. This pro-

tection is best attained where the company has a packaging research and development department.

Usually a package failure, where there is no research department, is ascribed to some package or packaging material that was not adequate for the task. I don't know of any bad packaging materials—only of good materials improperly used.

This year we are placing increasing emphasis on the design side of packaging. Visual appearance is becoming increasingly important with the development of the self-service store. While the Packaging Institute will probably never go all out on package design, we can never escape the relation of procurement and production to package design. For labels, wrappers, printing and the like cost dollars and time.

Then there is another aspect of packaging. This is the ability of the package to sell its contents. Under current marketing trends, this factor is of growing importance. Top management always wants packages that sell. This session will show how that challenge can be met—at lower costs.

The Program Committee under the leadership of Charles Kendall, vice president of Packaging Institute, deserves our thanks for some very fundamental thinking.

What Management Expects of Packaging—ARTHUR D. HYDE, *vice president, General Mills, Inc., Minneapolis, Minn.* Management, I'm sure, expects a great deal of packaging. Exactly what it expects, however, depends upon what business it is managing. I grew up in business life with a flour miller and maker of packaged foods, but I will try to give you as broad a picture as I can of what management—in general—expects from packaging.

All managements are seeking the perfect package. Probably it is impossible for one man—or even a group of men—to describe a perfect package. Actually, no man knows exactly what a package should be.

Recently, however, Dr. Burton surveyed a large number of executives, asking them to name the three most important results that improved packaging ought to accomplish for their companies and three of their particular packaging "gripes."

On the basis of that survey, I have assembled what a composite of these executives, at least, believes is the perfect package. What are the attributes of this perfect package? It is, first, a package that *increases sales* because: it catches and holds the prospective buyer's eye; it builds complete consumer acceptance; it looks like good value; it wins top display position and vigorous sales promotion from dealers; on its labels, it gives consumers the exact information they need in clear, convenient form; it eliminates consumer complaints of faulty packages; it stimulates enthusiasm and effort from the sales force; it looks like a fast seller; it minimizes the clerk's selling time; it shows its contents to their best possible advantage; it gives its product strong family resemblance to other products made by its manufacturer and enhances brand acceptance and prestige.

This perfect package facilitates distribution because: it lowers costs by eliminating "spillage," railroad claims and carrier complaints; it reduces the cost of handling, shipping and storing.

The perfect package facilitates production because: it is made of perfect materials, always uniform; it slashes manufacturing costs by eliminating material waste and breakage; it is formed with a minimum of labor on high-speed machines, made by a manufacturer who has a dynamic attitude, who cooperates with the user; it is fabricated and filled by machines that are delivered promptly, are serviced by well-trained personnel and backed by a good parts-re-

placement service; it eliminates the need for large inventories of packaging materials and saves storage space; its suppliers are as enthusiastic about small orders as they are about large orders, understand the user's exact requirements and deliver the package promptly.

Judging from the "gripes" given by executives in response to Dr. Burton's questionnaire, there is never a delay between the conception of this perfect package and its appearance in retail outlets. Suppliers who contribute to this package are never lax in adhering to specifications. Since the machines for making and filling the package are perfect, it is never necessary to sacrifice quality of product to meet requirements of the packaging operation. It is not necessary to "clutter up" this package with useless information required by conflicting, non-uniform national and local regulations. Color reproduction on this package is never faulty. The package is never the wrong shape or size for its purpose or for any of the operations of which it is a part.

In describing this supposedly perfect package, I have told you, in effect, what management hopes for. Now, more practically, what does management expect?

Basically, management hopes for and expects the same things; the difference is one of degree. Instead of demanding a package that costs *nothing*, for example, top executives expect a package that will cost as little as possible and still do its job effectively.

These, then, are the things management expects of packaging: first—salesmanship, plus the ability to give complete consumer satisfaction; second—protection for its products; third—reduced distribution costs.

Management need *not* know the *details* of packaging. It is management's duty, however, to supply the basic decisions on packaging—to determine its marketing aims, its scope, its budget.

A package today is living in a period of drastic change. The successful package is alive, not static. Like the corporation behind it, the package shows either stagnation or growth. Gradual and minor changes made from time to time are better than major changes made necessary by competition.

MONDAY AFTERNOON

How Organized Packaging Research Pays Off—Chairman, ROBERT DE S. COUCH, *General Foods Corp., Hoboken, N. J.* Each of the four members of the panel described the routine of the development of a new package within his own organization, tracing the original idea through the channels to its final emergence as a successful package. This was an informal discussion, in which the audience participated. The angle of approach was unusual, in that the emphasis was on the profitable results of research, rather than research itself.

IRA CONTANT, *Hoffmann-La Roche, Nutley, N. J.*, said that for some years prior to 1947 his company—a manufacturer of ethical pharmaceuticals—had realized the shortcomings of its packaging. The products are of a specialty nature and as each new product was added it had its special package design until "we just ran out of designs." Many of the designs were old fashioned in the extreme, as the speaker showed by means of color slides comparing old with new.

In 1947 management approval was obtained for an integrated new family package design. Although the change in appearance was quite radical in some cases, no drop-off in sales was experienced in any case, but a steady increase.

Due to the great number and variety of products, multiple problems arose during the package change-over and it was found that a packaging committee was necessary; no one

individual could handle the problems alone. The purchasing, sales, production and advertising departments were given equal voice, with a representative of management as chairman.

CARL SPRAGUE, *Sherwin-Williams Co., Cleveland*, laid emphasis on the proper organization of packaging research and development. Sherwin-Williams, he said, can trace all of its recent packaging progress to the organization of its first package engineering department two years ago.

Conflicting desires of the production, packaging and warehousing departments had to be reconciled. Close liaison between the technical men of the product and packaging departments was especially helpful. He cited one instance in which a seemingly insurmountable problem of incompatibility of product with package was overcome by a simple change in the product formula, which the production men suggested. A paint-and-varnish remover was so strong that it ate right through the can in a short time; the paint laboratory solved the problem and made it a better product by adding an inhibitor to the formula.

CHARLES MUNSON, *Ciba Pharmaceutical Products Co., Summit, N. J.*, described the development of Ciba's Pyribenzamine nebulizer, one of the outstanding new pharmaceutical packages of the year, with important implications for the whole field of drugs and medications administered by nasal spray (see MODERN PACKAGING, May, 1949, p. 97).

The obvious need for this anti-histamine product, which must be sprayed in the nose at frequent intervals, was for a small, integral, atomizing package that could be easily carried in pocket or purse. The Package Planning Division examined and tested several plastic materials before deciding on polyethylene. For various reasons the standard blow-molded polyethylene "squeeze" bottle could not be adapted to this purpose. It was necessary to develop a method of injection molding a tube-shaped container with an integral capillary tube and spray nozzle. Then the problem of sealing the bottom end of the tube after filling arose. With the Methods Engineering Div., Mr. Munson studied all known methods of heat sealing polyethylene and eventually developed a means of electronically welding the two 0.020-in. thicknesses of polyethylene at the rate of 1,000 an hour.

Mr. Munson gave credit for this and other Ciba packaging developments to the company's packaging committee, which includes representatives of the administration, research, production and sales departments.

L. F. BORCHARDT, *General Mills, Inc., Minneapolis*, gave the case history of his company's development of Pye-Quick, one of the most unusual protective packaging jobs in recent years in the food industry. The package is called upon to protect dehydrated apple slices and dry pie-crust mix—the one requiring maximum protection against penetration of water vapor and the other a high degree of greaseproofness.

The problem was solved by developing separate inner packages of entirely different specifications for the two components and enclosing them in a single, colorful outer package.

Stressing the care with which specifications were drawn to meet the most severe conditions of shipment and shelf life, Dr. Borchardt described a test shipment of an entire carload of the product to Los Angeles and back in midsummer, leading to final evaluation of, and changes in, the package.

TUESDAY MORNING—(General Session)

How Package Design Can Meet the Challenge of Cost and Marketing—Chairman, ROBERT G. NEUBAUER, designer, *Bridgeport, Conn.* There is an underlying plea that

in a sense comes from all designers—a plea that might lead to a closer cooperation that would make for better products at lower costs. He dramatized his talk by taking out of a waste basket: a clock, symbolic of lost time; paper money, symbolizing lost expense, and ideas, lost because of a lack of understanding and cooperation in package planning.

There is no blue-sky dreaming in this morning's program, he said. We are not going to talk with you in down-to-earth terms of the production department. One point from a designer's standpoint that I would like to air is this: Credit should be given to the client who chooses the outstanding design. Too frequently the fresh, provocative design is overlooked in favor of more conformative thinking. Outstanding designs are rarely followers. They are leaders as far as costs, the consumer's eye and the cash register are concerned.

The Triangulation of Packaging—BEAVER W. MILLS, art director, *Robert Gair Co., New York*. By "triangulation" of packaging is meant the triangle that exists between buyer, supplier and designer, said Mr. Mills. Whenever there is a lack of coordination between the three, sales suffer. The designer cannot insist on "blue sky" when the supplier says it can't be done or won't produce a design. The user of packaging must be prepared to give complete information when seeking a new package. Too often manufacturers come to us for a new design. Sometimes they won't tell us what the product is, saying it's secret and they can't release it. When we ask what the name of the product is to be, they haven't got one. If we ask what the weight is to be, they haven't weighed it.

Mr. Mills outlined the steps that should be taken to have proper coordination of the triangle, or "triangulation."

1. All key executives must be taken into the packaging program from the start to form a packaging committee which should include representatives of the advertising, production and merchandising divisions. Under no circumstances should one vice president be left out, so that when practically everything is ready he can say, "This isn't what I want."
2. The designer should be given all the facts. There seems an idea among some manufacturers that they should not tell all for fear of influencing the designer's thinking. But the designer can't work without information.
3. The packaging committee must sell the firm and the sales organization on the designer. It will not cooperate otherwise. Everyone must be convinced from the start.
4. An objective must be set for the packaging and defined clearly so that the designer can work effectively.
5. An efficient supplier should be selected and called in to make recommendations concerning structure, printing, etc.
6. The designer should be encouraged to bring in various styles, each of which should be examined by the packaging committee. The speaker cautioned his listeners not to be too much influenced by what they have seen elsewhere, to put more weight on what the supplier says.
7. The first ideas should be kept strictly within the packaging committee, he believes. They should not be taken around the office or plant for every office boy and secretary to put in their two cents worth. Such comments spoil too many good designs.
8. When the design is selected, then it should be studied from the economic standpoint and carefully scrutinized by supplier and production men.
9. Preparations should be made for testing the package. Tests should be made in a limited distribution area or by controlled survey to eliminate blue-sky packaging. Without

such testing, any company can only guess what the public wants.

10. When the package is right except for one or two minor changes, don't hand it over to another studio or designer to make the changes. Let the original designer do it. Too many packages are ruined by such alterations by outsiders who do not understand the over-all problem.

Teamwork and Timing of Package Development—MAX ROGERS, *art director and package designer, Avon Allied Products, Inc.* Mr. Rogers' talk was not so much concerned with the usual idea of timing—that is, having movement from production to warehouse to stores to home on time—but teamwork and timing from the broader aspect, meaning maximum effectiveness at the point of sale.

He related this to his own company, one of the largest in the cosmetic industry, which does all its business by direct selling through 60,000 representatives who ring 3,000,000 doorbells every week.

You may get some idea of what I mean by timing if I describe one of the calls by one of our representatives. All summer she has been calling on housewives to sell Christmas merchandise—long before any of her customers have given a thought to Christmas—before the Christmas magazines are out, before there are any Santas on the street corners or any jingle bells over the radio—and certainly amidst weather that suggests anything but Christmas.

When the girl gets to the door about 9 a. m., Mrs. Jones has just gotten the kids off to school and Mr. Jones off to work. The packages the girl has must be timed for maximum effectiveness at that given moment.

In planning for those moments we have found out a number of things customers want. They want honest, sincere packaging just as they want honest, sincere advertising. They are curious, but they are not gullible. You don't have to egg them on with stunts. They won't buy unless they think you are sincere. Consumers are different since the war. They take their time to shop and are more technically conscious because they have greater selection.

The successful package must invite them to buy. It must be legible and let the customer know what it contains. Costs of packaging and materials have increased, but increased costs can be met and designers are meeting the challenge.

Teamwork starts in the designer's mind—his awareness of the customer's unspoken desires. Customers are the most important part of teamwork. Their preferences require talent and research applied skillfully at the start.

Americans are generally known as people of good taste. This may be contested in view of juke boxes, loud neckties, etc., and some of the examples of bad taste one sees in shop windows everywhere. (Mr. Rogers exhibited several items of bric-a-brac he considered in bad taste.) One should never design down to tastes of that sort. People who want bad designs can find them, but don't make the mistake that you can design and sell because you make something that looks like something in somebody else's window.

Tastes on the whole are similar, but emotional. We have found, and it must be remembered that we deal mostly in gift packaging, that the first approach is through color. Details of form are not so important as color. You can't overcome bad color. People buy only what is familiar to them—colors they are familiar with. In planning packages, many color-preference studies are available.

Mr. Rogers described a redesign of a small perfume package his company recently redesigned in a familiar blue color and

with miniature appeal. For years the previous package selling just under \$2 had run along at 60,000 a year. During the first three weeks after the new package was introduced the company sold 250,000 at the same price.

He mentioned another perfume package which was designed to resemble a muff box in which was a miniature muff to hold the perfume and re-use later as a powderpuff. This was an example of timing, he said. Mrs. Jones—even early in the morning—got a kick out of it.

Another package described was a boy's package—containing tubes of hair dressing and shampoo, in a die-cut folding box type of package made to resemble a shirt with bow tie, designed in the same color as the men's package containing grooming aids. This was designed on the theory that some day boys will be men and if made familiar with Avon Allied Products young, will continue to be customers later on.

Good, intelligent teamwork and timing can make a successful package, he said, without resort to tricks and stunts.

It's Pretty—But Will It Help Sales?—FRANK COUTANT, *President, Fact Finders Associates, Inc., New York.* Functional design is the very heart of the problem of designing packages with greater sales appeal, said Mr. Coutant. In functional design, the emphasis is put on how the package will be used, rather than on how it will be made.

Functional design can apply even to such a seemingly simple problem as a wrapper for a cake of soap. Once I had about a gross of new designs for a Camay soap wrapper dumped on my desk to test and pick the winner. The story has been told before of how we arrived at a brilliant green and yellow wrapper, although executives were sure that women would prefer a nice soft pastel shade. Over 60,000 women were interviewed and there were extensive sales tests.

Not one of the many artists who designed these wrappers paid any attention to the functional shape of the cake of soap inside. That shape was not chosen because it is pretty; it was designed by a sculptor who modeled it to fit the hand. The wrapper artists made their designs as though the soap was just an oblong rectangle. Consequently, when Camay, so wrapped, went into the store stocks, the wrapper crushed, wrinkled and came off. It was a marketing man who put a cardboard stiffener inside to keep the wrapper neat and smooth, who put cellophane over it for lasting cleanliness and who recommended putting the word Camay in bigger letters on the side, because that is all the customer sees when the soap is displayed on the grocer's shelf. The artists had not thought through that the function of a soap wrapper is not prettiness, but sales attractiveness and that it must stay neat to be attractive. In this test we learned that women cared little about styles of lettering on a soap wrapper, but they were keenly sensitive to differences in color of wrapper. Their preference was not just green, but a certain very particular shade of green.

Sales attractiveness calls for thinking in three dimensions—height, width and thickness—with product-in-use ways in mind. It was a sculptor named McClelland Barclay, better known as an illustrator, who designed the Schenley Reserve decanter bottle. He was given the assignment because of his fame, but there was no wild acclaim when he delivered a rough black and white wash drawing that looked like a 10-minute sketch. It was a perfectly good sculptor's working drawing—even though it was not a pretty picture. Fortunately, before the executives decided that their \$500 was thrown away they asked a research man who had faith in Barclay to see what he could do to find out whether it really

was a good design. This called for a new testing technique.

First, we had a wood carver make a three dimensional mock-up following the sketch. Then plaster casts were made, colored to simulate a bottle of whiskey, labels were designed and the completed model was passed around among hundreds of men, who clunked it down, tried to upset it, handled it with wet hands. Always the answer was that they liked the way it handled and behaved. So research pronounced it a good bottle and the design was adopted. Where did Barclay get his idea? He told me. From an old powder flask for muzzle-loading guns, which had to be handled quickly and easily under difficulties in all kinds of weather.

Prettiness is not inconsistent with purpose, but there are many basic points on which the designer should be well informed before he goes near his drawing board. Is he designing a carton that is thrown away, like a shaving cream outside wrapper? Or stored in a kitchen cabinet, like a powdered soap box? Or kept on a dressing table like a face powder container? Under what condition is the package filled, packed, stored and displayed in a store? Will it have sales appeal on the dealer's shelf, selling through the eye? When women are shoving their way around a busy variety store (once called a five and dime), you'll get little shelf attention unless your package speaks right up and tells what's inside, what it's for and why it's more desirable than competing products that are also trying to attract the shopper's eye.

The competent designer will consider all purposes of the package from factory through to consumer. He works with the researcher to try out his ideas on the consumer. If women change their minds six months later and like something else better, that is a normal business risk that must be faced. Constant vigilance is the price of success in marketing and it is never safe to assume that the problem of a proper package is settled for long periods of time.

A typical packaged-goods line will lose 10 to 12% of its customers every year through people getting too old, dying or becoming converted to another brand. In eight to 10 years it will lose so many customers that the business dies unless replacements of customers are attracted at the same or greater rate as the normal loss. So the firm that reasons "We're doing all right with our present packaging—better leave it alone" is taking the biggest gamble of all. At least once every three years it is time to consult your package designer to see what suggestions he has to offer.

An advance notice of this meeting mentioned that "the trend is toward consumer preference for smaller-sized packages and rejection of large economy size." That is a challenging statement; it might be true, but our work at Fact Finders has not shown any such trend. We live by keeping track of what goes on and this needed checking. Our finding differs a bit from the statement as quoted. There is a noticeable gain in demand for small packages, but it does not seem to be at the expense of large sizes; rather, it is plus business. The explanation is simple: the big increase in new families that was a by-product of the war years, when girls could and did get their men.

The schools have the problem of the resultant big baby crop; marketers have the problem of meeting the demand of millions of small new families for sizes suitable for a household of two adults usually with a baby or two to keep the young father hustling to provide for a startling long list of items that all well-looked-after babies simply must have. It is a new phase of marketing.

The package designer should be in on all the packaging conferences right from the start. In today's complex mar-

keting, no man knows all the answers; no executive should attempt to dominate the thinking. In my years of testing packages, I have not so far seen an "executive choice" that agreed with the consumer vote. Firms are learning that it is easier to make what the customer wants to buy than to try to sell what they would like to make.

The only way to be sure that you have the right kind of packaging is to put it through a series of opinions and sales testing, leaving the final decision up to the customers.

TUESDAY AFTERNOON—(Concurrent Session)

Food Packaging Seminar—Chairman, DR. LOUIS B. HOWARD, *Dept. of Food Technology, University of Illinois*. Discussion leaders: DAVID CARPENTER, *laboratory director, P. Duff & Sons Co.*; SAMUEL E. NOBLE, *vice president in charge of production, Patton Foods, Div. of Chattanooga Medicine Co.*; SEYMOUR F. PRAGER, *chief chemist, S. Gumpert Co.*, and CLARENCE K. WIESMAN, *assistant director of research, Armour & Co.* Each member of the panel told briefly how the development and testing of new packages was done by his particular company. Members attending the seminar then picked up the discussion by firing a variety of questions.

Some of the most provocative questions on packaging tests resulted from Mr. Carpenter's and Mr. Weisman's preliminary remarks. Mr. Carpenter said that Duff obtained its conception of a package's shelf life from the data obtained in field tests and acceleration tests using both constant-control and cyclical-control cabinets. The disadvantages of field tests were the variation in climate in an area, the scarcity of temperature and humidity data from inside the warehouses where the test packages were stored and the difficulty of deciding when to go to field testing—time of year and stage of package development. Among the advantages field testing has, according to Mr. Carpenter, are: they are readily understood by all of management, product ingredients and processing methods are shown up in sharp relief, package materials weaknesses are also clearly brought out and the degree of insect infestation or insect imperviousness of the package can be determined from the field tests. He said that by developing the package and product as an integrated unit for testing has been found the most satisfactory method for his company.

In tracing the development of the new Armour vacuum-packed bacon package, Mr. Weisman said that the usual procedure had not been followed because here the company started with the package—the flexible, transparent, cellophane-laminated Pliofilm bag. The company tested the package first in the laboratory on different products, including fresh luncheon meats, before it was decided that it would be best for sliced bacon. These laboratory tests checked water-vapor transmission rates, grease resistance, etc., plus preliminary shipping tests. This was followed by the setting up of an experimental production line in which the packaging machinery was operated semi-automatically. The packages produced from this line were then tested for consumer acceptance and, finally, regular production lines with fully automatic packaging equipment were installed in various Armour plants. On these regular packaging lines, he added, the company found "kinks" in the package such as poor heat sealing, lack of full transparency and difficulties with the lamination, all of which had to be worked out by improving the packaging material.

Mr. Prager made the point that when the product's ingredient composition is altered or the production method changed, it is most important to realize that the original package can no

longer be considered perfect and packaging materials must be re-studied and re-evaluated.

Mr. Noble, speaking as a representative of a new, small, postwar food company, making prepared mixes, outlined some of the difficulties his company had experienced in getting suitable packaging materials and equipment. He mentioned the problem encountered with insect infestation and how it had been solved fairly well by fumigating flour storage rooms with methyl bromide after another method—packaging-line fumigation using isopropyl formate—had been unsatisfactory.

TUESDAY AFTERNOON—(Concurrent Session)

Drug and Pharmaceutical Seminar—Chairman, H. EARL NACK, *Sharp & Dohme*. The entire meeting was taken up with reports and discussions of the technical studies the Committee on Drugs and Pharmaceuticals has made during the past year on various phases of drug packaging based on questionnaires sent to members.

The studies and panel members who gave the reports before the several hundred in attendance were as follows:

Dropper Assembly Standardization, MR. NACK.

Screw Cap Problems, CARL B. BURNSIDE, *Eli Lilly Co.*

Shipping Breakage, FRANK MCCOMBER, *Abbott Laboratories*.

Containers for Physicians' Sampling, CHARLES O. KENDALL, *E. R. Squibb & Sons*.

The report on the study, "Inspection of Incoming Packaging Supplies," to have been given by Fred Bither, The Upjohn Co., was postponed because of incomplete results.

Mr. NACK illustrated his report on dropper assemblies with a visual presentation which aided in pointing out features where greater utility and greater uniformity of the package are possible with resultant packaging economies.

On an easel exhibited in the meeting room had been affixed all standard parts of medicine droppers, the types used, various types of private-mold containers, component parts of the cartons and inner constructive pieces such as paperboard tubes, partitions, etc., which may be used to secure the droppers and protect them in the package.

Also presented were photostatic blow-ups of the complete report which may be obtained through the Institute under the title of "The Packaging Institute's Drug and Pharmaceutical Committee Report, Package Study No. 1, Dropper Assemblies."

Using this material as practical demonstration, Mr. NACK covered the main points and made recommendations for possible further study toward standardization.

Mr. Burnside, in reporting on the screw-cap study listed the types of liners used by members participating in the survey and said that the usage of vinyl outnumbered all other materials mentioned four to one. He discussed the progress made in the use of saran and polyethylene and mentioned one company which was using 80% saran at present and expected to be using it 100% soon.

His talk covered a discussion of replies to questions relative to polyethylene caps, the relative merits of pulp and composition cork as cap liners, breakage problems, testing methods, leakage. Mr. Burnside reported the evidence of increasing use of statistical sampling to avoid breakage and inaccurately fitting caps. Also emphasized was the importance of tamperproof closures, particularly for export.

Mr. McComber in his report on the shipping-breakage study pointed out that 75% of the members who answered the survey said they were using 200-lb.-test containers. The average weight of shipping units used by those reporting was

16 lbs., although some companies reported units weighing as high as 40 or 50 lbs. He pointed out that there seemed to be much misunderstanding as to terminology and advocated the preparation by the Institute of a usable glossary of terms pertaining to shipping containers. He called on the members for suggestions on how to go ahead further with the study to achieve greater effectiveness.

Mr. Kendall directed the attention of his audience to an exhibit of hundreds of physician's sampler packages which had been set up across the back of the meeting room. These, he said, were collections sent in by 27 companies, 12 of which were manufacturers of drug products and 15 were suppliers of packaging materials. Assisted by Arthur Schettel of E. R. Squibb & Sons, Mr. Kendall described outstanding features of various types of packages. Following the meeting many members lingered around the exhibits to examine the collection in greater detail.

WEDNESDAY MORNING—(Seminar)

How to Specify for True Packaging Economy—Chairman, HERBERT T. HOLBROOK, *Standard Cap & Seal Corp., New York*. Dr. Burton in his keynote speech, said Mr. Holbrook, stated that "Packaging is the largest single controllable expense in a company's operation." The purpose of this seminar is to try to discover ways of bringing that expense under better control.

The members of this panel represent suppliers of many different kinds of packages, but each member is willing to submerge his own company representation for the sake of the general good.

Bags—HENRY W. STEVENS, *Benj. C. Betner Co., Devon, Pa.* Bags range in size from 1½ by 2 in. to the multiwall container capable of holding 100 lbs. or more. They are made of many different materials, principally of different kinds of paper. A great deal of research and a great deal of testing has been done in the field so that the packager today can obtain bags specifically suited for his products. In purchasing bags, it is advisable to tell your supplier the characteristics of your product and its handling so that you may obtain full advantage of this research and development work.

Cartons—STANLEY J. KLEIN, *Empire Box Corp., Garfield, N. J.* Yesterday, Mr. Hyde of General Mills told us that the perfect carton has not yet been developed. I thoroughly agree with this statement, but I believe nevertheless that cooperation between buyer and seller will afford an approach to it. There are certain specific points where this cooperation will be most beneficial. The first one is design. Your box maker can be of help to you in telling you how to cut costs by making certain alterations without any interference with the effectiveness of the design. Second is the selection of proper paper stock. Primarily this depends upon the product and its characteristics, but it also has a relationship to the nature of the design. Some designs, for example, might call for a very fine screen which you couldn't possibly print on certain kinds of paperboard. A third point is the construction, which is in part determined by whether the carton is to be machine filled or hand packed. The fourth point that influences cost is the question of delivery. If it is an emergency order required in a hurry, it may involve expensive overtime in the production of the order for cartons. Many times the carton buyer takes six months to decide to buy and when he places the order he demands immediate

delivery. For better correlation on all these points, why not call the box maker in during the development stages?

Plastic Packages—MYRON A. WICK, JR., *Plastic Manufacturers, Inc., Stamford, Conn.* The advantages of close cooperation between customer, molder and designer are nowhere more important than in the field of plastic packaging. The molder knows the practical possibilities of various designs that are submitted to him for manufacture and he works with many different resins. He knows fully what the properties of these resins are. His customer knows his own products and what they require in the way of packaging. They need to get together to decide what is the most appropriate package material for those products. Because of the possibilities of chemical reactions in the case of some products and certain resins, full confidence is necessary to avoid selecting the wrong material. It is true that the package buyer may have very good reasons for not wanting to disclose his formulations because of competitive conditions; if he places confidence in his molder, that confidence will be respected.

Collapsible Tubes—M. K. DRESDEN, *A. H. Wirz, Inc., Chester, Pa.* The most important single factor is complete cooperation between customer and manufacturer. In the case of tubes, when this condition exists, the tube manufacturer can put up in his own laboratories samples of his customer's product to determine what their reaction is in containers made of certain alloys.

As in other lines, sometimes the package user is afraid he might "tip his mitt" to his competitors. But if that fear is carried too far in his relations with his suppliers, it will prove to be costly and perhaps dangerous. For example, the tube manufacturer knows the limitations of the various metals with which he works and he has laboratory facilities that enable him to determine whether there is any incompatibility between the metal of the container and the ingredients of the product being packaged. With full information furnished by the customer and with the opportunity to perform preliminary tests, mistakes may be avoided and expenses reduced.

Glass Containers—JULIAN H. TOULOUSE, *chief engineer, General Manufacturing Dept., Owens-Illinois Glass Co., Toledo, Ohio.* For the past several years, the trend has been toward functional shapes in glass containers. This resulted in the development of numerous stock molds that to some degree displaced private molds. The trend began during the war years as a conservation measure, but the war experience pointed the way for important cost cutting in today's buyer's market.

This trend toward simplicity and functional design results in the production of packages which the sales department may not like because of their lack of individuality and sales appeal. It is, therefore, important for the package user to weigh the various factors in comparison with each other.

The first factor is price. The stock mold is naturally less expensive than the private mold. Another important factor is the production handling and speed. The simpler and plainer styles are easier to handle and permit great production speed. Your glass supplier can help you make these comparisons.

Closures—DR. JOHN SHARP, *Closure Division, Armstrong Cork Co., Lancaster, Pa.* The package user enjoys considerable latitude when it comes to selecting closures. The esthetic or artistic aspects are easily seen by the package

buyer, but sometimes the real function of the closure is overlooked. Obviously, the important function of the closure is to seal the package and to hold the seal we make use of liners of different kinds as well as different closure devices such as the lug, the thread or the rolled-on type.

The buyer also has the choice of many materials from which closures are made. These include metal, plastics, cork and so forth. Many substances are used for the liners—foil, coated papers, cork, etc., depending on the nature of the contents. As yet, no universal seal or liner has been developed.

Care must be taken to select the proper liner because a product may "work" on the seal and even on the container. When it is possible, it is advisable to conduct tests to select suitable closures for your products. The closure manufacturer has laboratories where tests can be made for his customer. This again points to the advisability of close cooperation between customer and supplier.

Cans—ROGER V. WILSON, *Continental Can Co., New York.* The metal can has prime advantages for certain products, particularly those that are of a liquid nature or that demand moisture retention. Long shelf life is another advantage, as is also the possibility of forming an hermetic seal.

The requirements of the product, of course, constitute the first factor in selecting the metal can. A second factor is the speed of production. This is a container which can go through the production line at very high speed, which compensates for a somewhat higher cost. Full confidence between buyer and seller will result in selecting the right lining, coating and sealing compounds to prevent corrosion.

Fibre Drums—D. C. ELDRIDGE, *Paper Converting Division, Continental Can Co., New York.* The fibre drum is a relatively new type of shipping container, but it has won a definite place for itself, especially for the shipment of dry bulk products. Like every other type of container, this one has its limitations, so we manufacturers are at particular pains to make sure that we recommend the proper type for structure, lining and closure. To do this intelligently, we must know (a) the nature of your product; (b) what kind of handling it goes through; (c) its end use by its consumer.

A common fault in the use of the fibre drum is to select incorrect size. A recent study was made which disclosed the fact that in 50% of the cases too large a size was selected. This means that the shipper pays for more packaging than he needs, he pays freight charges on unnecessary weight and, in the case of export shipment, he pays for unused cubic content. This type of overpackaging is very costly, but it is avoidable through close cooperation between buyer and seller.

Shipping Containers—JOHN B. WYATT, *Hinde & Dauch Paper Co., Sandusky, Ohio.* Twenty-five per cent of the total paper production, or 4½ million tons, goes into the production of fibre shipping boxes.

The best known form of the shipping box is the regular slotted container, which is a basic development and from which many other forms have been derived.

The user of the corrugated and fibreboard shipping box should be thoroughly familiar with the well known Rule 41, but it should be remembered that this rule gives a minimum of requirements as to structural strength. Therefore, there should be some addition for tolerance.

A careful study of the shipping operations often points the way to reduction of handling costs. For example, we made such a study for one of our customers and found that they

were using two rather powerful girls who were packaging a small instrument for shipping, using large-sized sheets of corrugated which they folded into shape. We showed them how pieces of the proper size could be folded and scored so that they were able to use one girl—and a small one at that—whose output was greater than the two. The board folded and scored cost more than the sheets they had been using, but there was a much greater saving because the over-all cost including labor was considerably less. True economy was attained as a result of the buyer and seller working together.

WEDNESDAY AFTERNOON—(General Session)

Production Line Problems (Filling and Labeling). Seminar—Chairman, PALMER J. LATHROP, *president, Cameron Machine Co., Brooklyn.* Discussion leaders: DON F. COPPELL, *chief engineer, Wagner Baking Co.;* GEORGE GARNATZ, *director, Kroger Food Foundation;* MAURINE PONDER, *Joseph E. Seagram & Sons, Inc.;* H. OLDENBURG, *general works manager, The Mennen Co.;* A. F. STEVENSON, *The Borden Co.;* ADOLPH E. TIESLER, *Lederle Laboratories, and* JOHN A. WARREN, *engineering department, American Home Products.* The closing session, attended by approximately 200 production and packaging line managers plus equipment suppliers, was devoted to a discussion of filling and labeling machinery, techniques and difficulties. Each of the panel members spoke on the packaging of one particular type of product or on a specific topic before questions from the audience were answered.

Soft, Yielding Materials and Brittle, Fragile Products, such as breads, sweet goods, crackers and cookies were discussed by Mr. Garnatz. In bread packaging about the only problem is to assure the flexibility of the wrapper going around the loaves since there is always a variation in individual load dimensions. With the introduction of band ovens in cookie and cracker processing, the packaging operation has been greatly streamlined through the use of conveyors in various combinations which automatically group and stack the materials ready for the operators to place them in cartons. In labeling, Mr. Garnatz pointed out, the most recent improvement had been in Kroger's adoption of heat-sealing, roll-type labels for cookies and sweet goods packaged in over-wrapped trays and cartons.

Soft, Fragile Materials (Pie Fillings). Handling of pie fillings by automatic equipment has many shortcomings, Mr. Coppel said, i.e., getting filling machines which are sanitary in operation, easy to clean, flexible, accurate and economical. The characteristics of the pie fillings themselves so far have been the great stumbling block in development of such machinery, but the possibilities offer a challenge to machinery suppliers. Mr. Coppel said that it would help if suppliers would test their filling machines more thoroughly before offering them to pie makers so that more operating data would be obtainable.

Powders—From the Filling Point of View, Mr. Oldenburg said, are almost always tied to problems due to changes in the density of powders. The Mennen Co. tried centrifugal vibrators at one time, but has now come to the conclusion that flexible diaphragms attached to the inside of the filling hoppers which inflate and deflate are better. Another problem which the company had was that of can closures being received too tightly twisted on the can or too loosely attached. Upon checking, it was found that the trouble started with

the can suppliers. The solution was in insisting that the can suppliers test the caps with an Owens-Illinois torque-testing apparatus to meet certain specifications. The elimination of dusty powder on the outside of cans during and after filling is one problem the company has been unable to solve.

Bottle Labeling and Filling. Five ways that the Seagram company controls the quality of its labels to avoid expensive losses on bottling lines were outlined by Miss Ponder: enforcement of specifications, replacement of obsolete machinery, intensification of the co-ordination between the suppliers and the company, improvement of mechanical techniques and establishment of a packaging committee. This committee, she said, reviews all the complaints about the packages, the production procedures, the supply situation and sets up special research projects in packaging. Currently some of these projects are concerned with adhesives, the problems of scuffing, embossing and varnishing.

Sticky and Hygroscopic Materials. It is sometimes more costly to do automatically an operation that previously has been done manually, according to Mr. Stevenson, who reviewed problems his company has encountered in trying to mechanize its mince-meat packaging lines. The sticky cakes of mince meat are still placed onto waxed paper wraps by hand even though the rest of the packaging line is automatic because mechanical means so far developed have not been satisfactory. It is more expensive to shut down the whole line to clean such equipment than to provide extra girls to relieve those on the line while they change gloves, etc. On filling hygroscopic powders, Mr. Stevenson referred to the problems his company had with its soluble coffee. Here, moisture and dust were equally troublesome, he said. The filler must be one that is accurate, easily cleaned and has the moving parts protected. In his opinion, such a filler has not yet been developed although the suppliers are getting closer to fulfilling these prerequisites.

Sterile Filling. Mr. Tiesler told how the great increase in new drug products had brought packaging problems to Lederle Laboratories, the greatest of these being the need for sterile filling. Maintaining the sterility of the packaging supplies and equipment has been the other phase of this over-all problem. He said that many techniques have been borrowed from the food and cosmetic packaging lines to get greater speed in the drug packaging lines, but there is still a need for accurate, automatic, multiple-head fillers, which can handle small lots efficiently. A fairly new development in labeling singled out by Mr. Tiesler for favorable comment was the machine that automatically imprints codes and label identification on glass vials with quick-drying inks. The filling of single-dose syringes and the packaging of impregnated gauze bandages for sterility were two other packaging problems Lederle is interested in. Mr. Tiesler showed a series of slides on how packaging techniques for handling penicillin have changed as production methods have changed.

Narrow Tolerance in Weight Filling, the Labeling Bottleneck. The amount of overfill depends upon accuracy of the filling machine and the type of material being filled, Mr. Warren stated. At American Home Products net, volumetric and gross weight fillers are all used and on most of the machines accuracy can be kept to $\frac{1}{16}$ oz. overfill; on some of the products volumetrically filled, the variation is as small as $\frac{1}{16}\%$. The company has found that product con-

trol of granular size is very important in achieving accuracy of weight. Mr. Warren said that gross weighers were probably the most difficult to control because of container weight variations. To control this, he said, the calibration of the board and the weight per 1,000 sq. ft. should be clearly specified in ordering the board. The primary disadvantage of the net weigher is its slow speed.

A recent survey of 29 labeling lines at A.H.P. plants, including all types of equipment, showed that 58% of the down time occurred at the labeling machines, he reported. Upon

investigation, the label stock and the way the labels were packed were the two main reasons for this down time. From the production-line viewpoint, the back of the label is important since that is the surface upon which the adhesive is applied, therefore the company's label specifications are based upon the use of the Valley size test, to measure the amount of water penetration in three seconds. The way the labels are packaged by the supplier can help or hinder the speed of identification at the time of storing and ultimate use, as well as the condition of the labels.

First National Conference on Pre-Packaging

Even the name of the new Produce Pre-Packaging Assn. remained tentative at the end of three days of the First National Conference on Pre-Packaging, held by invitation in conjunction with the Packaging Institute Forum. Whether the group will affiliate with the Packaging Institute, join one of numerous produce organizations, or be a completely independent association was left for decision by the newly elected officers and directors, who were named at the formal organization meeting—attended by about 100—on Wednesday afternoon.

A few things were certain, however. The need for a specialized organization to deal with the packaging problems of this rapidly growing branch of the packaging field was made crystal clear—and it was obvious that the members want to regard packaging as its sole reason for being, not as a side issue. It seemed to be the consensus of the leaders that the organization should restrict itself to fruit and vegetables, and not include meats, delicatessen items, etc., although the question was argued from the floor at length. It was apparent that Federal and State agricultural leaders and packaging suppliers will be active in the new organization, as they had been in preliminary planning.

Officers and directors elected were, in the main, however, active pre-packagers. Among the new officers are the two temporary co-chairmen who organized the meeting: Paul B. Dickman of Dickman Farms, Ruskin, Fla., who was elected president, and William Lee Duvall of E. L. Duvall & Sons, Baltimore, named treasurer. Other officers are George McCarger of the Aunt Mid Co., Chicago, vice president, and Ralph David of *Pre-Pack-Age*, New York, secretary. The board of directors includes G. W. Sippel, Farmer Brown, Inc., Depew, N. Y.; Samuel L. Vitale, Detroit Tomato & Produce Co., Detroit; John Bunney, John Bunney Farms, Little Ferry, N. J.; J. William O'Donnell, Suffolk Farms, Revere, Mass.; C. W. Marvin, C. W. Marvin Co., San Antonio, and Hans M. Hansen, Hans Hansen, Inc., Gray, Me.

Two classes of membership were set up: active members, including companies actually engaged in fruit and vegetable pre-packaging, and associate members, including firms and individuals supplying materials, equipment and services for pre-packaging. Dues in each case will be \$60 a year. Membership applications will be received by the secretary, Mr. David, or by Mr. Dickman at Ruskin, Fla.

There were three general conference sessions, apart from the joint opening meeting and luncheon with the Packaging Institute, and one afternoon of separate, informal seminars on the special subjects of potatoes and onions, tomatoes, fruits and general-line produce. Condensed reports on the three general sessions follow; remarks of the speakers in most cases have been paraphrased in the interest of condensation.

MONDAY AFTERNOON—(Pre-packaging Conference)

Panel on Materials and Equipment—Chairman, JOHN BAER, Baer Bros., Hagerstown, Md.

Fundamental Objectives—MR. BAER. Up until the present, the fresh fruit and vegetable industry has generally been satisfied with the conclusions drawn by a group of retailers in the Mid-West and reported in produce publications as follows: (1) That pre-packaging is not a cure-all for produce merchandising difficulties; (2) That quality in pre-packaged items is even more necessary than in bulk offerings; (3) Refrigerated display is essential to obtain maximum benefit from pre-pack; (4) That with proper management, sales on some items can be increased and losses reduced by pre-packaging.

It is our purpose in this session to delve into technicalities of materials and equipment for pre-packaging to help the industry to grow from infancy to national acceptance with preferred methods of distribution and purchase.

Films—F. W. SPANNAGEL, *Sylvania Div., American Viscose Corp., New York*. The Universal film for this industry has not yet been invented; it should be moisture retentive, be substantially free of condensation under fluctuating conditions of temperature and relative humidity, have a fairly high permeability to oxygen, easy to seal and convert, and be reasonably inexpensive. Until all of these requirements and physical characteristics are met, the alternative remains to select for each commodity the most desirable film available or to provide the necessary ventilation (wherever required).

What, then, do we look for in a transparent film for produce pre-packaging? (1) Structural strength, (2) Product visibility, (3) Ease of handling in manual packaging or mechanical operation, (4) Cost factor—economical use, (5) Printability.

As all tightly closed packages will interfere with the normal gas exchange, actual experiments should be carried out to determine what package atmosphere will be tolerated by any specific product.

The U. S. Dept. of Agriculture has studied the performance of different films in rather large-scale pre-packaging experiments and has collected some valuable data on the requirements of a variety of products.

Film packaging alone will not improve the market quality of produce. Refrigeration is essential or desirable for many commodities. Cellophane is the most widely used film in the produce industry today because of its versatility.

Open-Mesh Bags—C. T. CRANDELL, *Chase Bag Co., Chicago*. The open-mesh bag provides an attractive package

that is eye catching and eye appealing and displays the produce in its natural color and size. The open-mesh bag particularly lends itself to quality produce and should only be used for such in view of the all-over visibility. It allows the customer to see the product at the top, bottom, sides and even the corners of the bag. It allows the produce to breathe.

Consumer-sized open-mesh bags, which are made in 3-, 5-, 8-, 10- and 15-lb. sizes, lower the retailer's handling costs, as it takes less time for the clerk to build and maintain displays. It also lowers the time spent at the check-out counter and avoids having to weigh or count the produce.

Specialty Bags—WILLIAM F. JACOBI, *Union Bag & Paper Corp., New York*. A specialty bag may be defined as one made for a special purpose, as distinct from a stock style like the ordinary grocery bag. The grocery bag is merely a carrier, whereas the specialty bag is more truly a package in that it protects and identifies the contents.

It was in 1925 that the bag manufacturers and their customers got together and standardized on the sizes and constructions of the ordinary grocery bag. One of the early troubles of the pre-packager was the fact that there were no adequate packages. Bags, as well as other forms of packages, were deficient. As the field grew, however, developments came rapidly. One of these is the window bag which is made of wet-strength paper and which uses special adhesives. From many points of view, this is a very satisfactory package because it has good shelf life and eye appeal.

Folding Cartons and Trays—HENRY LEVKOFF, *Standard Folding Tray Corp., Brooklyn*. One principle to be decided at the outset is represented by the question: Do you regard your packaging material as an expense or an asset? Does it satisfy the three requirements of protection, production workability and sales appeal?

From the standpoint of protection, certain problems are imposed by the product itself which make the decision regarding the construction features. Moisture resistance and a package that permits breathing are required by some products. Machine handling on the production line in many cases requires the sturdy construction of a tray or carton in order to prevent the bruising of the produce.

The surface of a tray or carton can be regarded as advertising space, so the pre-packager is justified in considering his carton or package as an advertising expenditure.

Master Containers—J. C. VAN CLEAF, *Gaylord Container Co., St. Louis*. For the pre-packager, there are three vital principles to be regarded in selecting his shipping containers: (1) Will the contents, in unit packages, require ventilation? (2) How does the shipping container stack before use? (3) How does it handle in the production line and in distribution? (Then followed a description of the correct master container.)

The grower should not hesitate to lay his problems before his suppliers. Most of the larger suppliers have research departments whose findings are available to the purchaser. From the standpoint of cost, it is wise to consider the end cost rather than the first purchase cost.

Packaging Equipment—WALTER FARRELLY, *supervisor of mechanical development, Du Pont, Wilmington, Del.* The use of materials for pre packaging went hand in hand with the development of equipment. Pre-packaging demanded special devices and machines. The machinery manufacturer co-

operated and the present trend is toward specialty machines. The first one to be successfully launched was for tomatoes and more recently fully automatic and semi-automatic machines have appeared for other products. There are plenty of unsolved problems in connection with the equipment, but there are in successful operation semi-automatic machines for spinach, citrus bagging machines and others. There are also bag-making machines for "in-plant" operations and there is a variety of heat-sealing machines, ranging from the small hand-operated sealing iron to the large-sized automatic equipment. Celery and head lettuce and similar products call for highly specialized machines. The pre-packager can also obtain labeling devices and attachments, band-labeling equipment and attachments for code dating.

Package and Label Design—EGMONT ARENS, *designer, New York*. One of the most important considerations in package design for the pre-packager is the selection of his brand name. The power and consumer appeal of the brand makes itself felt on three levels—the terminal warehouse, the retail distributor and the grower. If produce is suitable for refrigerated packaged shipment, I urge pre-packaging and brand identification at the grower level.

Visibility is very important, but once a brand has established a reputation for quality and reliability, the consumer no longer need re-assure herself as to the condition of the product. She takes the brand's word for it. When this happens, the visibility element becomes less necessary. So visibility should never crowd out strong brand identification no matter how attractive the product may be. With all foods, appetite appeal is vital. If visibility provides sufficient appetite appeal, by all means use it. If not, use pictures to tell the story. You can also use package surface to provide recipes, vitamin contents and other sales features.

TUESDAY MORNING

Science and Economics of Pre-Packaging—*Chairman, PAUL B. DICKMAN, Ruskin, Fla.*

Some Physiological Aspects of Produce Packaging—DR. WALTER A. MACLINN, *chairman, Department of Food Technology, Rutgers University, New Brunswick, N. J.* The "will to live" in inanimate objects such as fruits and vegetables seems to be as strong a driving force as it is in the normal human being. Deny a human being an adequate food supply and he continues to live for a time on energy stored in his body. Deny a fruit or vegetable its food by removing it from the soil or the mother plant and it too continues to live for a time by releasing its stored energy to maintain its life processes.

It is the moral responsibility of the pre-packager to provide the ideal environment for prolonging the life and quality of each type of fresh produce. Fruits and vegetables need: (1) careful handling, (2) sanitary environment and (3) protective packaging materials.

Only through continued cooperation between the practicing pre-packager and the research investigator can the fundamental principles and the idiosyncrasies of the living processes of each type of fruit and vegetable be determined. When more is known about the post-harvest physiology of fresh produce perhaps man can assist in helping fruits and vegetables to grow old gracefully.

What Makes an Acceptable Consumer Unit?—EARL D. MALLISON, *Director of Research, Atlantic Commission Co.,*

New York. What makes an acceptable commercial consumer unit? The final test is whether the homemaker will buy it when she has a choice of selection.

I think we can all agree that, when the housewife is shopping for fresh fruits and vegetables in her favorite food store, she is looking for quality, condition, maturity and economy and that she will do this whether the produce is pre-packaged or sold in bulk. If in her mind there is any difference in what she expects between bulk and pre-packaged produce, you can well believe that she will expect better quality in the pre-packaged merchandise.

The retail shopper has learned by sad experience that it is not only desirable but necessary to inspect personally the produce before making the final selection and purchase. The more visibility built into the consumer package, the more acceptable it becomes to the consumer.

An acceptable consumer unit must give protection. The kind of protection will vary with product requirements.

It goes without saying that the size of the consumer unit is all important and requires considerable thought and consideration. The acceptable consumer unit must meet certain legal requirements. To the best of my knowledge, the minimum requirements are that the package must give the name of the particular commodity, the packer or distributor and his address, and the count or net weight. If any preservative, coloring matter or other foreign material has been added to the product, this must be given.

The consumer unit must be clean, neat and free from a shopworn appearance. A touch of bright color that draws the eye is a help.

For the package to be merely pretty or to be used as a method of selling acetate, cellophane, cotton, paper or Pliofilm, is not enough. We are selling fresh fruits and vegetables and not a package and the package must be an adjunct to this purpose.

The Outlook for Pre-Packaged Produce—DONALD R. STOKES, *economic analyst, Marketing Research Branch, Production and Marketing Administration, U. S. Department of Agriculture, Washington, D. C.* The days are past when many people thought pre-packaging would prove to be just a "flash in the pan." The Department of Agriculture has now been studying the problems of pre-packaging for five years and that "infant industry" of a few years ago is now an integral part of our marketing system. We still don't know the answers to many problems, but we have done enough work to provide a basis for some rough estimates of coming trends.

Factors which are important in determining the relative potential possibilities for pre-packaging various vegetables and fruits are: (1) need for unitizing loose items, (2) possibilities for reduction in waste and spoilage, (3) need for preparation or kitchen servicing, (4) relative costs of pre-packaging and bulk packaging and (5) the effect of pre-packaging on preservation of quality.

Pre-packaging of produce is not likely to expand rapidly if based on the premise that the housewife will pay a premium price for it. We must attempt to find savings on waste and spoilage losses, and reduction in retailing costs by unitizing loose items in sufficient amounts to help defray the costs of packaging.

We rate the following vegetables as having a "good" pre-packaging potential: asparagus, snap beans, broccoli, sweet corn, kale, onions, potatoes, spinach and tomatoes. The following items are rated "fair": lima beans and

peas (chiefly because of the lack of satisfactory shelling machinery and short package life), carrots, cauliflower, celery, lettuce, peppers and sweet potatoes. For some of these items the potential outlook is good—such as for carrots and lettuce—but costs are too high.

We find that the terminal market is the best foreseeable point to pre-package most vegetables. But with fruits we see a different picture. Practically all fruits have to be unitized; that is, sooner or later they have to be packaged in consumer-sized units. And, in contrast to vegetables, it appears that in the majority of cases the "sooner" the better. In addition to helping to preserve the moisture content of the fruit, the consumer package plays a very important role in reducing bruise damage to the fruit. In general, the package life of most fruits exceeds that of most vegetables and inasmuch as most fruits are more easily adaptable to mechanized packaging machinery, we are inclined to predict that pre-packaging of fruits will come about faster than for vegetables and that they will be pre-packaged primarily at the source of production.

Economic Studies Pertaining to the Pre-Packaging of Potatoes—DR. CHARLES H. MERCHANT, *head, Department of Agricultural Economics & Farm Management, University of Maine, Orono, Maine* It is possible that pre-packaging of potatoes is ushering in a new era for the potato industry. Pre-packing not only is changing the location of the packaging of potatoes, but it is changing the responsibility for the contents of the package from wholesalers and retailers to shippers. This shift in responsibility may involve changes in the marketing of potatoes from producers to consumers.

Pre-packaged potatoes from Maine are now arriving at the markets in 5-, 7½-, 10-, 15- and 25-lb. packages. We have different grades of paper bags, mesh bags and a few cotton bags. In general, a fairly small-sized package holding 5 to 7½ lbs. and a larger package holding 10 or 15 lbs. are needed for the retail trade. It would be desirable to standardize on some definite sizes at a fairly early date.

Potatoes in the past have not been as carefully standardized for quality or size as many other farm products. This lack of standardization has been too prevalent in pre-packaged potatoes.

The initial cost of packaging a highly standardized product is somewhat higher than for an ordinary pack of potatoes. Also, there is some additional cost in carefully handling the pre-packaged potatoes to prevent bruising.

The pre-packaging of potatoes in Maine has provided much employment during the fall and winter months when farm work is slack. This operation not only provides employment, but also a better utilization of the potato crop.

Further research work should show whether pre-packaged potatoes can be handled as efficiently and with as little bruising as potatoes in wholesale containers.

Economic Studies at Point of Distribution—DR. CHARLES W. HAUCK, *economist, Extension Service, U. S. Dept. of Agriculture, Washington, D. C.* Dr. Hauck, who was closely associated with the original A & P Columbus Experiment while connected with Ohio State University, pointed out that the history of pre-packaging of fresh fruits and vegetables goes back only seven or eight years. There are lots of things that we don't yet know—but on the other hand there are plenty of things that we do know.

The ability of pre-packaging to increase sales has been well established. In Columbus, for example, the sale of

sweet corn was increased 1,200% when the ears were husked, cleaned and placed in packages.

As an example of the needs of pre-packagers, Dr. Hauck cited the demand for a machine that will shell lima beans without damaging them in such a way as to shorten their shelf life as a fresh product. Tests have proved that consumers want and will buy shelled lima beans in packages. But hand shelling is uneconomical and canners' shelling machines are not practical.

No longer, said Dr. Hauck, can the pre-packager afford the luxury of going at this thing independently. The trial-and-error method is wasteful. There is need for a central organization to attack these problems jointly.

WEDNESDAY MORNING—(General Session)

Pre-packaging Technology—*Chairman, GEORGE McCARGAR, Aunt Mid Co., Chicago.*

Germicidal Treatment of Fresh Produce—*DR. HENRY C. MARKS, director of chemical research, Wallace & Tiernan, Inc., Newark, N. J.* Pre-packaged produce showing more than 10% decay has been found unacceptable to the consumer, said Dr. Marks, who gave a progress report of the development of germicidal washes for the treatment of pre-packaged fruits and vegetables. He outlined the requirements of such treatment—penetration, rapid germicidal activity, continuous effectiveness—but said that no one process or material had been found completely satisfactory. Chlorine compounds, he said, appeared to come nearest to meeting necessary requirements, but had to be modified to suit conditions. Modified chlorine solutions, he said, had been effective on spinach. Commercial treatment has also been tried on some celery and Brussels sprouts, but results on one vegetable may not be carried over to another, because the methods vary from crop to crop. The work is still much in the development stage, but shows promise with further improvement in treatment, routine control of the processes and reduction of costs.

Refrigeration of Pre-Packaged Produce—*DR. H. A. SCHOMER, Bureau of Plant Industry, USDA, Washington.* Until treatment methods are effected and accepted, refrigeration is the only method of controlling the growth of organisms in fresh produce, he said. One of the greatest problems in the way of further development of pre-packaging was the fact that wholesalers and retailers were not equipped with refrigeration to handle fresh pre-packaged produce. He outlined the various methods of pre-cooling that should be done before the vegetables are put into packages and touched on hydro-cooling, cold-air blasts, vacuum cooling, supplementary refrigeration in storage rooms and railroad cars. He discussed the possibilities of mechanical refrigeration, particularly on trucks, whereby fresh produce might be pre-cooled in transit and thus save a great amount of time involved in getting fresh produce from fields to the consumer.

Vacuum Cooling—a New Method of Lowering the Temperature of Produce—*DR. B. A. FREIDMAN, Bureau of Plant Industry, USDA, New York.* Dr. Freidman reported on experiments with steam vacuum methods which reckon pre-cooling time in a matter of minutes rather than hours. Like many new methods, vacuum cooling is based on old-fashioned principles in the use of the evaporation, like the cooling effect of breezes over the ocean, or a fan blowing over water. He described experiments with laboratory apparatus as well as a steam vacuum chamber developed by Croll

Reynolds Engineering Co., Inc., New York, for a commercial operation on lettuce at Salinas, Calif. In this case the vacuum apparatus was 30 ft. long and 6 ft. in diameter, evacuated to 4.6 mm. of mercury (absolute pressure). With this equipment a half carload of lettuce can be cooled in 50 to 55 min. from 60 to 70 deg. F. to 30.9 to 32.7 deg. average.

Plant Layouts for Pre-Packaging Plants—*RUDOLPH SCHWARTZ, Tennis & Schwartz, consulting engineers, Philadelphia.* Up to 50% of the manual work done in our factories, offices and shops is unnecessary. A finger motion, for example, takes "almost no time at all." Yet, a study has shown that one unnecessary finger motion can cost from \$1,000 to \$100,000 a year, Mr. Schwartz said.

In a recent time and motion study, 96 jobs were analyzed and suggestions for improvements were applied. The new methods reduced time by 40%, whereas the cost of tools and equipment to put these improved methods into effect made up only 7.5% of the total savings.

Before the plant layout is made, the operator must have a graphic picture of the operation itself, namely, a step-by-step analysis of what is to take place in pre-packaging. For making layouts, a flow process chart which lists all the various operations that take place in a packaging room is used, and the speaker described in detail how to make such a chart for a pre-packaging plant. No matter what layouts you develop, they will generally fall into two basic types: (1) Product or line layout and (2) The process or functional layout. In the line layout your equipment is placed in a straight line along the path of travel of the product. It is valuable for a continuous operation when the material to be processed is relatively uniform. In a line layout each different product is processed on a different line.

In the process or functional layout similar operations are grouped together in departments, such as trimming, weighing and wrapping, etc. There is no separation of product and the same operation handles various products.

Where production consists of a large number of items, all of which are processed in a different manner, and the operation is intermittent and subject to large fluctuation in demand, the functional layout is most advantageous. The speaker illustrated his talk with slides of typical plant layouts.

Food Plant Sanitation—*DR. CARL R. FELLERS, Food Technology Dept., University of Massachusetts, Amherst, Mass.* Plant sanitation is a special series of operations—quality control, equipment selection and maintenance, and vigilance.

The main points to be covered in a plant sanitation program are: (1) Water supply, (2) Care and maintenance of plant and equipment (including proper equipment for the job), (3) Sources of possible contamination to the product, (4) Rodent and insect infestations, (5) Waste disposal, (6) Personal cleanliness, (7) General housekeeping and tidiness, (8) Supervision and inspection.

Pre-packagers should take most seriously the subject of plant sanitation. Use sound raw produce, wash it thoroughly, trim carefully, package without delay and keep cool until delivery to the customer. A clean product can come only from a clean plant. Frequent clean-up periods for equipment, tables, floors and personnel are absolutely necessary to avoid a build-up of yeasts and bacteria which cause slime, discoloration, loss of quality and actual spoilage. Use good detergents and germicides freely and in accordance with directions. Keep effective and efficient cleaning equipment on hand and use it. Train the clean-up crew to do a good job.

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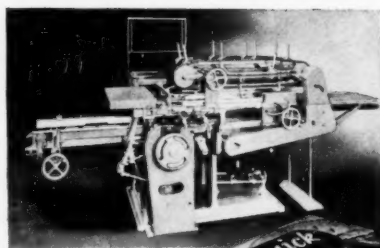
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TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr. • Technical Editor

Sealing of polyethylene

NEW METHODS OF HEAT SEALING, FLAME SEALING AND WELDING

ARE EXTENDING THE USEFULNESS OF THIS MATERIAL. By William Ryan*

The widespread interest in polyethylene¹ in the packaging field has indicated the need for more information on the techniques for working with this new material. Because of its extreme chemical resistance, it is very difficult to seal polyethylene strongly with any type of adhesive. Therefore, in fabrication the strongest joints are made through the use of heat. The rapid growth of this material in the packaging field has been made possible by the development of many special heat-sealing and welding techniques.

Polyethylene may be welded to itself by application of heat and pressure. In establishing the techniques for welding or heat sealing this material, it is important to consider the form to be handled, as well as the physical properties of the material itself. For thicknesses up to approximately ten mils (0.010 in.) one technique may be used, but for heavier sections an entirely different technique is required. In general, the joining of film

in such applications as packaging is referred to as heat sealing, while the joining of heavier material is called welding.

The characteristics of polyethylene that make it an interesting packaging material have been previously listed.² It has a number of important individual properties, but it is the combination of all of them in one material that is unique. It is tough and flexible at temperatures below 0 deg. F. and even below -70 deg. F.; it has a low rate of water-vapor transmission at room temperature and a very low rate at low temperatures; it has high chemical resistance; it is heat sealable and it is free from taste, odor and toxicity. Finally, its relatively low cost, coupled with its low specific gravity, make it an economical material for many uses.

Those properties that apply to the problem of heat sealing or welding are of primary importance to this article.

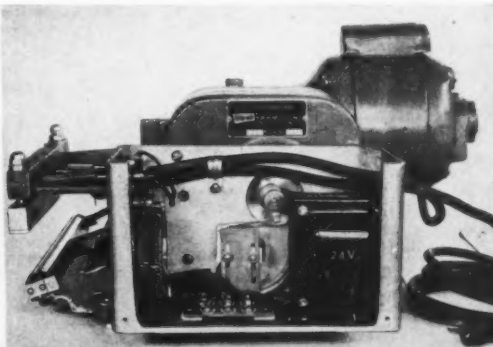
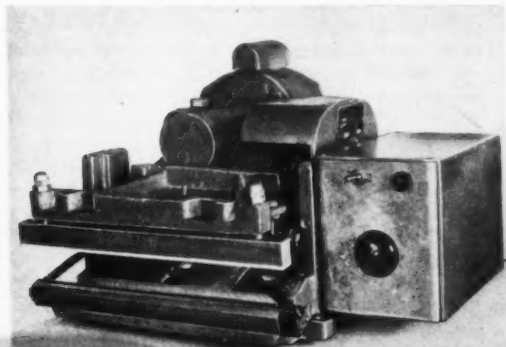
The melting point of polyethylene is relatively sharp.

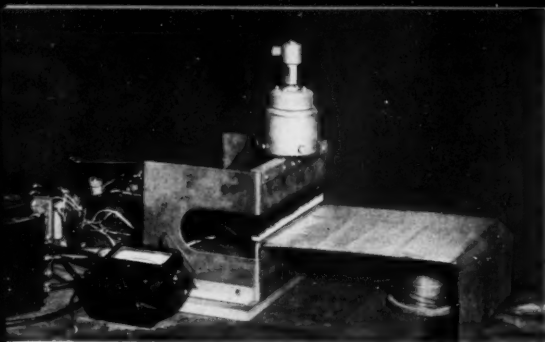
* Plastics Product Development, Polychemicals Dept., E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

¹ This material is identified in Du Pont literature as "polythene," a contraction of the chemical name, polyethylene.

² See "Polyethylene: Uses and Prospects," by Charles A. Southwick, Jr., MODERN PACKAGING, Aug., 1949, p. 117.

NICHROME ELEMENT on lower jaw of this impulse-type heat sealer for polyethylene film prevents sticking by rapidly dissipating the burst of heat during 1-sec. pressure cycle. The dial provides a current setting for various gauges of film. Photograph at right is a side view of the control box, showing cam and microswitch which control the timing of high-amperage impulse; rheostat controls the input voltage of the transformer. PHOTOS COURTESY WRAP-ADE MACHINE CO.





LABORATORY MODEL of new impulse sealer which provides rapid cycles. Heating element is a metal base covered by a layer of insulating ceramic enamel, over which is a thin strip of electrically conducting silver coated with a special glaze to protect the silver from abrasion. Dissipation of heat from film is rapid and the smooth surface presented to molten polyethylene minimizes sticking. PHOTO COURTESY HEDWIN CORP.

which may be attributed to the fact that it is a microcrystalline plastic, although it does contain some amorphous material. Its melt viscosity is low in comparison to those of such materials as acrylic resin. Unmodified polyethylene will deteriorate when heated in air above its melting point of 220 deg. F. and such treatment, if prolonged, will make it brittle. When in a molten state, polyethylene has a tendency to stick to almost everything. The electrical properties of polyethylene, an outstanding virtue when the plastic is used as a high-frequency insulating material, become a vice where electronic sealing is concerned. The dielectric strength of polyethylene is high, but its dielectric constant is low and its power factor is exceptionally low. Hence it is impossible, by any conventional high-frequency dielectric heating equipment, to develop enough heat in the polyethylene to melt it, except by using voltages which would puncture it.

Conventional heat sealing

Any equipment capable of operation at a minimum of 250 deg. F. can be used to heat seal polyethylene. The common technique used to adapt conventional equipment to the sealing of polyethylene involves the use of a slip-sheet, i.e., a piece of cellophane or thin paper used to prevent the polyethylene from direct contact with the hot jaws of the heat sealer. The slip-sheet is usually stripped off after the seal has been made, but it may be left in place and utilized as a saddle label. If better adhesion is desired for the label, polyethylene-coated paper is available. The use of a slip-sheet has the advantage of yielding good seals with a minimum of control, but it also has the disadvantage of increasing the cost of the seal.

With careful regulation of temperature and pressure, it is possible to dispense with the slip-sheet and to heat seal polyethylene in the same manner used for any other thermoplastic film. It is impossible to specify the exact temperature that should be used, but 250 deg.

F. is a good starting point for establishing the optimum temperature. Among the factors that determine the optimum operating temperature are the thermal conductivity of the jaws, the rate of sealing (seals per minute), the dwell time and the thickness of the film to be sealed.

Correct pressure is as important a factor as correct temperature; in fact, the two are interdependent to the extent that a deficiency of the one may sometimes be compensated by an increase of the other. If the pressure or the temperature is too low, a good bond will not be obtained. If either is too high, the polyethylene will be extruded from between the jaws. But extrusion can be limited by providing a stop which prevents the jaws from closing to less than about $\frac{3}{4}$ of the combined thickness of the layers of film and this method of control is easier and more positive than adjustments of pressure.

When a slip-sheet is used, the interdependent factors of temperature and pressure apply also, but close control is less important.

The problem of sticking is encountered only when no slip-sheet is used. As has been pointed out above, polyethylene has a tendency to be sticky when hot. Serrated jaws are therefore unsatisfactory. Smooth metal jaws have been used, but a covering of tetrafluoroethylene resin ("Teflon") has been found to be helpful. Silicone rubber also has been used, particularly for the unheated jaw. The most effective antisticking agent is silicone grease (Dow Corning's DC-7 Compound). A thin coating of this lubricant over the jaws will prevent sticking, but it must be replaced frequently, as a small part of it adheres to each seal.

Rotary sealers have been found to be unsatisfactory for polyethylene unless slip-sheets are used. A modified rotary or continuous sealer that is satisfactory is described in the following section.

Band-type sealers

The earliest type of heat sealer to be found particularly suited to polyethylene is the so-called band sealer. These operate on the principle of conveying the films to be sealed between two steel belts to a heating station, where the polyethylene is melted and the seal accomplished, then to a cooling station and then releasing the film. This technique virtually eliminates sticking, as the film is cold before the pressure is released. Such a sealer produces a seal which is neat and attractive, but wide. Since the sealing is continuous, the band sealers are suited to some assembly lines. The process is usually considered not particularly suited to bag making for obvious mechanical reasons. Sealers of the band type require somewhat less attention to pressure and temperature than do conventional jaw sealers. Band-type sealers are available from several different companies.³

Impulse sealers

The impulse sealer is considered by many in the field to be the best for sealing polyethylene film. No slip-

³ Doughboy Industries, Inc., New Richmond, Wis.; Ralph Chaffee & Co., San Francisco; Sav-Way Industries, Inc., Detroit.

sheet is required; temperature and pressure do not require close control; the time required to effect the seal is short and the appearance of the seal is good. The method is applicable to jaw-type sealers, automatic bag-making machinery and sealing of irregular shapes. Gusseted tubing presents no problem to this type of sealing.

The principle is described in U. S. Patent 2,160,160.⁴ The equipment involves an electrically conducting strip which can be heated rapidly by a pulse of current to a temperature above 250 deg. F. A thin band of a non-conductor of electricity separates the strip from the jaw. The jaw should be made of a material having good thermal conductivity. The process involves heating the conducting strip, before and/or during contact with the films to be sealed, to a temperature above the melting point of the polyethylene. The current may be turned off as soon as the interface of the films to be sealed has melted. Cooling is rapid by conduction of the heat back into the jaws. When the film has cooled to about 160 deg. F., the pressure may be released. The entire cycle of closing and opening the jaws may be well under $\frac{1}{2}$ sec. for joints having a total thickness of 8 mils. If the cycle is repeated continuously at a high rate, however, special consideration must be given to the dissipation of the heat by radiation, air cooling or even water cooling. Various heat sealers utilizing the impulse method are now available.⁵

Special equipment for impulse sealing which warrants further description has been developed by one company.⁶ The heating element comprises a metal base covered by a layer of ceramic enamel which acts as an electrical insulator. Over this enamel is a thin strip of silver, which is electrically conducting and over this, in turn, a top coat of glaze to protect the silver from abrasion. With this construction, dissipation of heat from the film is rapid and hence cycles may be very short. The smooth surface presented to the molten polyethylene minimizes sticking. The cold areas outside the edges of the silver strip act as dams to prevent extrusion at high pressure or temperature. This type of element is particularly adaptable to irregular or closed-path seals, such as a ring.

High-frequency dielectric sealing

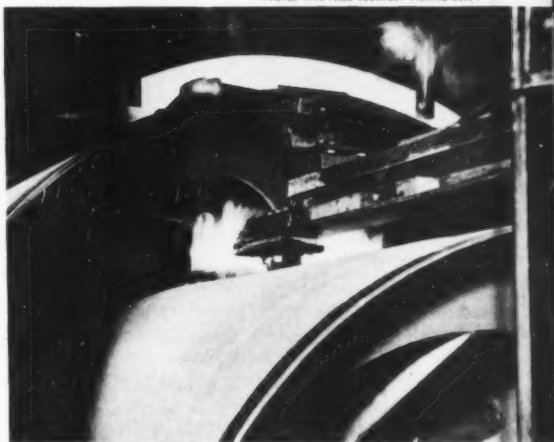
As indicated previously in this report, it is impossible to heat seal polyethylene with conventional electronic equipment as it is set up for the sealing of such films as vinyl. But any equipment of this type may be adapted to polyethylene by the simple expedient of covering the electrodes with a high-loss material. This high-loss material should be capable of withstanding a temperature of 250 deg. F. without excessive deformation. Cellophane, cellulose acetate, vinyls and "Kel-F" have been found to be suitable. The heat is developed dielectrically in this jaw covering and trans-

mitted to the polyethylene by conduction. The optimum thickness of the covering material or buffer is of the order of 2 to 5 mils. The practical life of such coverings varies with the material, the thickness of the polyethylene to be sealed, the design of the equipment, etc., but is long enough in most cases to be commercially practicable. This method produces good seals, as it is the thermal equivalent of the impulse seal, i.e., the joint is cooled before it is released.

Bead sealing

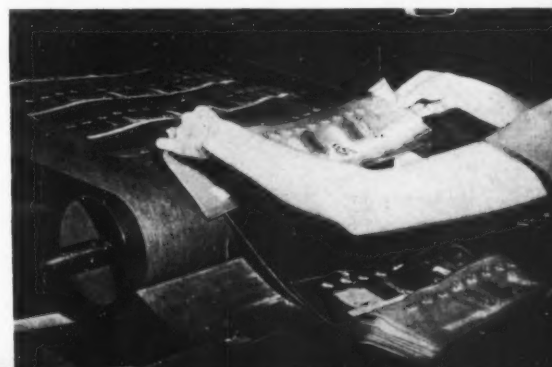
Although bead sealing seems unsuited to production equipment, it is being used commercially to a limited extent. The method involves clamping the film to be sealed between two metal jaws with approximately $\frac{1}{16}$ in. of the web protruding. This edge is then heated

PHOTO THIS PAGE COURTESY VISKING CORP.



FLAME SEALING ends of sections of polyethylene tubing to form bags. Bags pass through machine on endless belts, protruding about $\frac{1}{8}$ in. over edge of the belt and at this point are carried across gas flame which seals ends. Two drums are shown, one higher than the other, and two gas burners which are sealing bags two-up.

BAGS TRAVEL through flame-sealing machine at rate of 27 ft. per minute and are here shown being removed, ready to be packed for shipment.



⁴ Issued to Nicholas Langer, P. B. Mallory & Co., Inc., New York.
⁵ Precision Paper Tube Co., Chicago; Wrap-Ade Machine Co., Inc., Belleville, N. J.
⁶ The Hedwin Co., Baltimore, Md.

by a flame or hot wire. It melts and may even burn. The bead draws back to the jaws under the influence of surface tension. Cooling is so rapid as to extinguish any flame. The jaws may be opened as soon as the resulting bead has cooled to about 160 deg. F.

This method produces strong, attractive seals. It is rapid; some reports indicate sealing speeds over 100 ft. per min. It is not particularly critical except with respect to the amount of film protruding from the jaws. The inherent drawback is in the use of an open flame or exposed hot wire. No machinery utilizing this principle is being sold commercially, although the process is described in several patents.

Welding

Assembly work in heavy sections of polyethylene is done chiefly by welding and there are three techniques now in general use: gas welding, induction heating and heated-tool welding.

Gas welding. This is the most widely applicable technique for fabricating heavy sections of polyethylene. The equipment used is portable, operates in a conventional manner and is relatively inexpensive. Since the method closely resembles gas welding of metal, a skilled worker should find it easy to apply his previous training to the fabrication of articles from polyethylene. Large, heavy-walled containers or liners have been made from sheets of polyethylene by this process. The method is particularly applicable to custom jobs or short production runs.

The gas-welding technique is as follows: A jet of pre-heated welding gas is directed at the base of a filler rod and at the edges of the polyethylene sections to be joined. The filler rod, as it is drawn along the joint, must be constantly feathered and agitated in order to

promote uniformity throughout the fused mass. Thus there is assured a complete mixing and intermingling of the molten polyethylene and a finished weld having the same appearance as a gas weld of metal. Welding speeds depend on the thickness of the material and the diameter of the filler rod. Rates as high as 20 in. per min. have been attained. The tensile strength of the joint obtained by gas welding is about 90% of the strength of the original material and if the weld is properly made it will have adequate flex strength.

It has been found that polyethylene when welded by a blast of hot air suffers some deterioration, evidenced by an impairment of its elongation. This difficulty was attributed to the oxidation of the polyethylene. Inert gases such as nitrogen and carbon dioxide were subsequently tried. Nitrogen was found to be satisfactory and is the gas most commonly used at present.

The "torch" used for gas welding can be heated either by electricity or by gas. The electrically heated torch may be operated on a 40-50 volt transformer having a power rating of 1,000 watts. A "Variac" of equivalent power may be used to regulate the temperature of the gas. The welding gas, supplied under a pressure of approximately 30 p.s.i., passes through a stainless-steel tube, which in the electric torch may be heated directly by resistance. The gas should emerge from the tip of the torch at approximately 540 deg. F., as there is a loss of about 180 deg. between the nozzle and the work. Thus the actual working temperature of the gas is about 360 deg. F. A torch that appears suitable for this type of welding was just announced.⁷

As in the gas welding of metals, filler rods are used of a composition the same as or similar to that of the material to be welded. The most satisfactory results have been obtained by using filler rods of polyethylene containing up to 12% of polyisobutylene. The lower softening point of such rods facilitates rapid welding.⁸

Induction heating. The electrical properties of polyethylene are such that it cannot be heated directly by either dielectric or induction-heating methods. It can, however, be heated by thermal conduction from an induction-heated insert of metal placed at the interface of the two pieces to be joined. It is this process that is known as "induction heating."

Although this method for welding polyethylene is relatively new, it is gaining widespread use because of its speed and simplicity and the fact that it lends itself to semi-automatic machinery. The induction-heating technique can best be put to use where articles of polyethylene of a similar size and shape are being made in large quantities and where high production rates are demanded. This process is particularly applicable in the packaging field for the sealing of closures in polyethylene bottles and for the assembly of the body and base of injection-molded bottles. It has found application also in the chemical industry for the assembly of polyethylene pipe and fittings.

HOT-JET TORCH, used in gas welding of thicker sections of polyethylene. Process is similar to metal welding, except that the filler rod is polyethylene containing up to 12% polyisobutylene. Nitrogen gas is fed through the electrically heated torch at a pressure of 30 p.s.i.



PHOTO COURTESY OF BELL & RICHARDSON

⁷ By DeBell & Richardson, Inc., Hazardville, Conn.

⁸ Mixtures of polyethylene and polyisobutylene are covered by U. S. Patent 2,369,471 of G. H. Latham, assigned to E. I. du Pont de Nemours & Co., Inc.



INDUCTION BONDING of base to body of injection-molded polyethylene bottle is accomplished by inserting a ring of small-gauge metal wire around base. At left, base and ring are pressed in place. Weld is accomplished (right) by bringing bottle assembly under work coil of induction heater. Ring in base becomes heated by induced eddy currents; under slight pressure, molten plastic adjacent to ring intermixes. PHOTOS COURTESY SQUEEZ-EASY DISPENSER & CONTAINER CO.

The metallic insert should cover the greater part of the area of the joint between the two pieces of polyethylene without extending to the edges of the polyethylene. It is positioned between the surfaces which are to be joined and then the assembly is brought under the work coil of an induction heater. The insert becomes heated by induced eddy currents and melts the adjacent layers of polyethylene. By application of small pressure, this molten material is caused to flow and intermix. When cooled, this forms a strong joint, with the insert remaining completely sealed within the polyethylene. The melting without prolonged exposure to air, plus the intermixing of the molten polyethylene, yields excellent seals with high tensile and flex strength.

The design of the metallic insert depends upon the strength required in the joint. For some welding jobs, a light, simple insert, which melts only a relatively small area of polyethylene, will be adequate. For example, a bottle is currently being manufactured by using a ring of small-gauge wire as the insert for welding the base to the tubular body. In some cases it will be well to use a perforated metallic insert. The molten polyethylene can flow through the perforations and a strong weld is formed by virtue of the large area of contact. To carry this principle one step further, a piece of woven wire screen can be used. This, by way of the interstices, provides the largest area of direct union that can be obtained with an insert of any size.

In the bottle mentioned above and in many other articles, the presence of the metallic insert in the joint provides a desirable stiffening. Also it is evident that the metallic insert may be designed, through its shape or perforations, to provide a decorative effect or to carry a trademark or other identifying legend. Since the insert is completely encased in polyethylene, it will be unaffected by the contents of a bottle or liner

made in this manner. There are several manufacturers of suitable induction heaters.²

Heated-tool welding. This method has been used chiefly for the joining of polyethylene pipe, but it is also applicable to the assembly of bottles from injection-molded parts or the sealing of closures on polyethylene bottles.

The surfaces to be welded are heated by radiant energy from a heater element of any suitable type. The softened parts are then pressed together with a slight twisting motion. This serves two purposes: it breaks up and distributes the exposed surface which may have suffered oxidation by exposure to air while hot and also it breaks and distributes any hard skin which may form by incipient freezing before the two melted surfaces can be brought together. To minimize this freezing, the molten surfaces should be brought together with the least possible delay. Pressure should be maintained on the joint until it has solidified. When this method is used, it is suggested that flash be avoided by chamfering the abutting surfaces so that the surplus polyethylene squeezed out of the joint just fills the resulting crevice.

Summary

A variety of commercial equipment is now available for the heat sealing or welding of polyethylene in its various forms and thicknesses. The method to be used will be determined by the particular application and production requirements. These improved facilities for handling, together with increased availability of the material, make possible a growing use of polyethylene in packaging, where its valuable combination of properties and variety of useful forms fill many requirements in a unique manner.

² Allis-Chalmers Mfg. Co., Milwaukee; General Electric Co., Schenectady, N. Y.; Spectrum Engineers, Inc., Philadelphia; Westinghouse Electric Corp., Pittsburgh.

Questions and Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Gas transmission of transparent films

QUESTION: We are attempting to package in a transparent film a fresh vegetable which gives off carbon dioxide gas while in storage. Our package tests give variable results and we are also confused by the differences in the reported values for the gas transmission of transparent films. What causes such erratic behavior and data?

ANSWER: There are many phases to your problem and some of them may be more important than the actual gas-transmission value of the transparent film. First, there are many variables in the fresh produce itself and unfortunately some of these variables may be beyond your control. For example, the degree of maturity of the product, the time and history between harvesting and packaging, as well as the package and the storage conditions, can contribute variations and lack of uniformity. The tightness of seals and seams, the grade or type of the film, the moisture in the package, the temperature and humidity of storage and the question of whether light and air circulation are used, all have a bearing. When the effects of the foregoing variables are either known or stabilized, then the gas transmission of the film may be a critical matter. However, it must be kept in mind that many films show considerable changes in their carbon dioxide permeation—values depending on their moisture content or on the humidity of the atmosphere. For example, an uncoated cellophane will transmit about 120 times more carbon dioxide at high humidity than under dry conditions. Also, the transmission values of special films or those of complex composition can show large changes in values over a range of temperature. Your problem

has many and complex variables and will take time, many tests and expert judgment before the final specification of a satisfactory package can be developed. Because the problem is so complex, you are advised to proceed slowly and make several trial shipments before going into full-scale production.

Tamperproof seals for glass jars

QUESTION: One of our divisions manufactures and packages a food seasoning for domestic and export trade. They suffer in varying degrees the annoyance of having packages tampered with and contents adulterated by persons unknown. Currently, we are packaging the material in glass jars of various sizes, with screw caps, because of the product's hygroscopic nature and the type of inner closure on the package. We would like your suggestions on means of effecting tamperproofness of this package.

ANSWER: There are many different ways of making a glass jar and cap tamperproof. The final choice of method will depend upon the degree of tamperproofness you require and the extra cost it involves.

Probably one of the simplest tamperproof means is the cellulose shrink-type band which is applied over the screw cap and glass finish, which when in position as the result of drying, offers effective resistance to casual tampering.

Another type of tamperproof seal is an inner seal which is placed over the glass finish before the cap is placed into position. This method has the disadvantage of not offering any resistance to the removal of the cap and thus tampering is not apparent if the user does not know that the seal should be present. There are several companies who make various types of so-called "safety seals" and bands which are designed to prevent counterfeiting and tampering. These vary from sealed bands printed on special paper to heat-sealed or wired-on hoods. You should investigate these to find out which one is best suited to your package and needs.

Another type of tamperproof seal is a rolled-on type of aluminum cap which when applied by special equipment and on special glass finish requires that the metal be broken before the bottle can be opened. In this case, tampering is obvious and it would be impossible to cover up evidence of the bottle having been opened.

AUTHOR'S CORRECTION. In response to inquiries, Dr. L. W. Elder of General Foods, author of the article "Fundamentals of Package Function" in the October issue of MODERN PACKAGING, points out that his Table III failed to identify the grade of Pliofilm which gave water-vapor permeability values of 2 to 5 grams. This was the FF grade and the values given cover a range from thick to thin gauges. He adds that there are less-permeable grades of Pliofilm, such as N1, for which the manufacturer gives permeability values ranging from 0.44 grams for 140 gauge to 1.30 for 75 gauge.

Look at the versatility you get with bottles molded of DU PONT POLYTHENE



Protection against chemical action is provided by unbreakable bottles. Chemical inertness prevents contamination of accurately adjusted buffer solution. ("Erusticator" rust remover by Pennsylvania Salt Mfg. Co., Phila.; buffer solution by Leeds & Nothrop Co., Philadelphia.)



Unusual shapes and sizes are easily and economically molded of Du Pont polythene in many attractive colors. ("Stoppette" deodorant by Jules Montanier, Chicago, Illinois; "Snowman" by Tussy Cosmetics, New York, New York.)



Spray bottle makes application of many liquids quick and easy. When bottle equipped with molded polythene closure is squeezed a fine spray is emitted. ("Spray-A-Way" by Lee Pharmacal Co., Beverly Hills, Calif.)



Handsome packaging of toiletries and cosmetics is one of the most popular uses. Polythene is available in a range of colors. Provides distinctive eye-appeal. ("Seaforth" shaving lotion, talc, hair-dressing by Alfred D. McKelvy Co., New York; "Fragrant Fern" cologne by Alexandra de Markoff, New York)

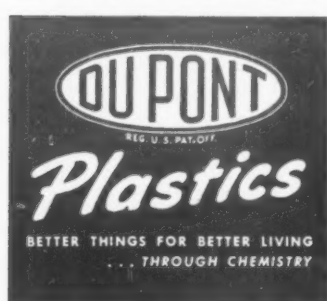
"Plaxpak" bottles blow molded by Plax Corporation, Hartford Conn.

Bottles and other containers molded of versatile Du Pont polythene offer this valuable combination of properties:

- Toughness and strength (unbreakable)
- Flexibility (squeezeable)
- Lightness of weight (specific gravity 0.92)
- Chemical inertness
- Low permeability*
- Freedom from taste, odor, toxicity (contains no plasticizer)

Polythene molding powders are made by the Du Pont Company. Polythene is supplied by molders, extruders, and other processors in molded containers and closures, film, lay-flat seamless tubing, and other forms. We'll gladly suggest suppliers.

* The permeability of polythene to most compounds is either negligible or low enough for most purposes. Permeability to specific substances should be tested before using.



Mail coupon below for more data or contact sales office nearest you: E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Dept. (consolidation of Plastics and Ammonia Divs.), Plastics Sales Offices: 350 Fifth Ave., New York 1, N. Y.; 7 South Dearborn Street, Chicago 3, Ill.; 845 East 60th Street, Los Angeles 1, Calif.

MAIL THIS COUPON TODAY!

E. I. du Pont de Nemours & Co. (Inc.)
Room N 9525, Wilmington 98, Delaware

Please send the latest literature on Du Pont polythene for packaging.

Name _____ Position _____

Firm _____

Address _____

CAN YOU ANSWER "YES" TO ALL 3 QUESTIONS?

1. *Are you fully aware of the ways in which plastics materials can improve your product?*
2. *Are you familiar with all the new plastics materials now available on the market?*
3. *Do you know the properties of all the major plastics materials and the ways in which they can be employed to better your product's performance and sales appeal?*

If, in all honesty, you find that you've had to answer "no" to any of these questions, then you may unconsciously be missing out on the numerous ways in which these new materials can profitably be put in use in your business.

Fortunately there is an easy solution: Modern Plastics Magazine is the world's most authoritative monthly publication devoted exclusively to the application and use of plastics. It reports on all the newest developments in the field—materials, applications, machinery, design and production. And you can subscribe to Modern Plastics Magazine at an annual cost of only \$5.00

for twelve monthly issues. Every one of them will give you sound, proven ways by which you can (1) improve the quality of your product, (2) increase your production efficiency and (3) widen the market value and sales appeal of the items you manufacture.

But don't wait until you've forgotten about it. Fill out the coupon now so that you can benefit immediately from the many ideas contained in the current issue.



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MODERN PLASTICS

122 E. 42nd Street
New York 17, New York

MODERN PLASTICS MAGAZINE

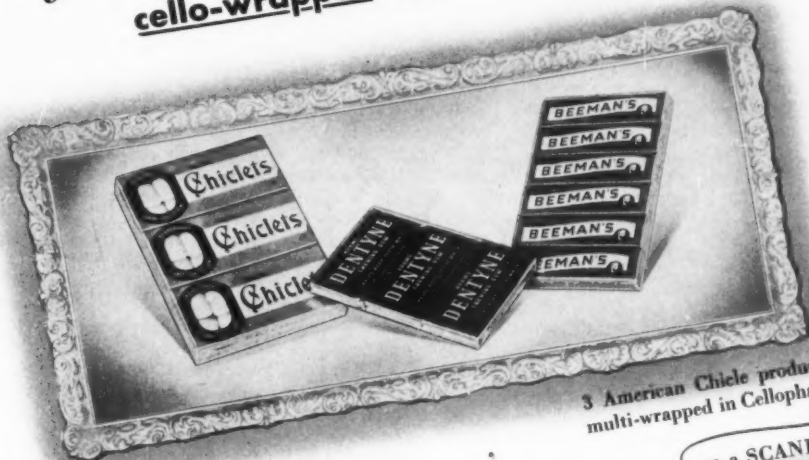
122 E. 42nd St., New York 17, N. Y.

Gentlemen:

I would like to keep up with the many new developments in plastics. Please start my subscription immediately. I would like to subscribe for one year at ☐ \$5.00; two years at ☐ \$8.00. (Foreign: ☐ \$6.00 for one year, ☐ \$10.00 for two years. Canadian: ☐ \$5.50 for one year, ☐ \$9.00 for two years.)
☐ Bill me. ☐ Remittance enclosed.

Name
Company
Address
City Zone State
Your Position

MULTI-PACKS for multiple sales cello-wrapped at Lower Cost



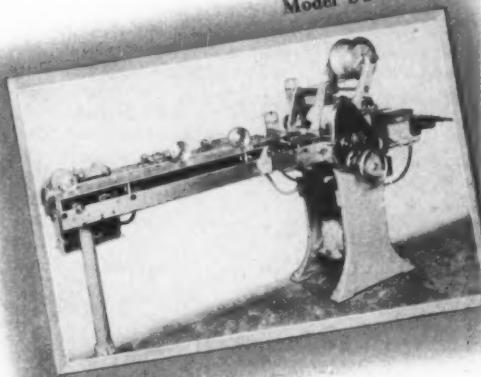
3 American Chicle products
multi-wrapped in Cellophane

on a SCANDIA*
Model SFT

The Facts —

100-A-MINUTE for multi-packs is standard performance on these popular packs. They are wrapped WITHOUT cardboard bases; require 30% LESS cellophane than other automatic machines because of Scandia's thrifty style of wrap and have many operating advantages — like the movable heat-sealers which automatically move away from the packages whenever the machines are stopped, thereby preventing scorching or "cooking" of the product.

No production executive, contemplating increased production at lower cost, can afford to plan until he has seen smooth-running, quiet, fast and thrifty Scandia's at work . . .



* made under Bronander patents.

Scandia

MANUFACTURING COMPANY
NORTH ARLINGTON, NEW JERSEY

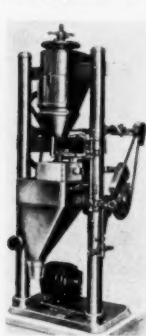
★ Saving 30%
cellophane —
★ without using
any cardboard



Equipment and Materials

ELECTRONIC NET WEIGHER

Automatic Scale Co., 591 Hudson St., New York, announces an automatic, electronically controlled net-weighing machine for delicate materials as well as products not sufficiently free-



flowing to pass through gravity feeds. This Model NPV (illustrated) will weigh up to 5 lbs. of material and has a bucket capacity of 270 cu. in. It will operate with bags, cartons, glass and metal containers. The weigher is equipped with a specially designed and patented feeder that will handle such fragile materials as tea leaves without breakage and at the same time assures a uniform flow to the weighing bucket. It will also handle spices, coffee, cereals, etc. It features an electronically controlled, high-speed valve which closes when the exact weight is reached. Its uniform flow, in addition to the high-speed valve action,

makes possible a high degree of accuracy on weights up to 5 lbs., it is said. A preliminary feed chamber above the feed cut-off valve allows material to build up during that period of the cycle when the bucket is dumping its charge. This chamber discharges into the bucket and acts as a preliminary charge, being immediately followed by the slower uniform feed. Speeds up to 25 to 30 per min. on 1-lb. charges, with an accuracy of $1/16$ oz. have been obtained, it is stated.

Another weigher recently launched by this company is the Model 515-F heavy-duty bagging scale for weighing feed, grain and other granular materials in 50- to 200-lb. bags. According to the company, a dual feed permits bagging from 25 to 35 tons per hr. and holds an accuracy of approximately 4 oz. on 100-lb. bags. The weigher operates without electric devices, switches or motors.

DRUG VIAL WITH SNAP-ON CLOSURE

Latest addition to the line of prescription glassware made by Armstrong Cork Co., Lancaster, Pa., is the Label-Rite capsule vial with snap-on cap for dry prescriptions. Vials are of light-weight flint glass; caps are of polyethylene plastic material. These closures can be removed or replaced with a flip of the thumb. The vials are so designed that the label can be placed inside, if desired. The manufacturer reports the closures fit snugly regardless of weather conditions and are safe for many hygroscopic products. Now available in seven sizes ranging from 2 to 12 dr., in one-gross shipping cases, they are distributed through drug wholesalers to the retail drug trade exclusively by the Drug Sundries Department of the manufacturer.



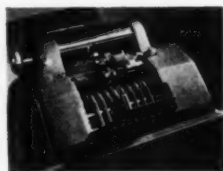
ACCELERATED PRODUCTION

Gering Products Co., Kenilworth, N. J., on completion of the expansion of its manufacturing facilities, announces increased production in several departments, notably in its custom-coloring service and production of plastic sheets, rods and tubing. A number of new types of compounding machines and allied equipment have been put into service in the custom-coloring department handling such thermoplastic powders as polystyrene, polyethylene, cellulose acetate, ethyl cellulose and vinyl. This custom service has been much in demand during 1949 by molders in the United States, South America, Europe and the Far East, the company reports.

At the same time, relocation of other departments has enabled Gering to dedicate one of its larger structures to production of packaging, tubing, rods and sheets of polystyrene, polyethylene, cellulose acetate and vinyl materials, thus stepping up production substantially. The company reports the plant has been modernized with all recent processing developments to go into high gear. The personnel in this department has also been augmented and all newly developed or recently perfected methods have been studied and then utilized where they were found to promise efficient, low-cost, high-quality production.

COUNTING MACHINE

A general-purpose counting machine which will operate at speeds ranging from 500 to 1,000 per minute, handling such items as labels, cards, tickets, etc., is now available from

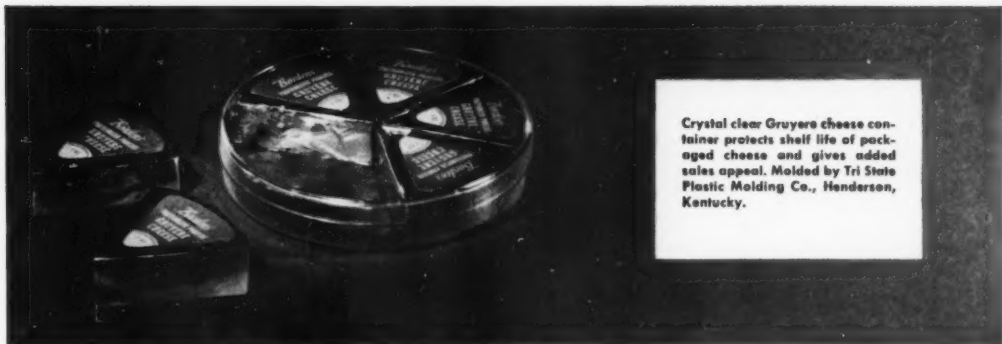


Pitney-Bowes, Inc., Stamford, Conn. This Model TIC "Tickometer" is a production development of an earlier custom-type machine reported to effect tremendous savings in time and labor in many enterprises such as the manufacturing and packaging of

foods, drugs, baked goods, and in department and specialty stores. Its makers say the new Tickometer offers 100% counting accuracy, is simple and safe to run, requires no extensive training and feeds and stacks automatically. An optional imprinting device permits dating, coding, endorsing or cancelling while counting. The machine has two ascending counters. One is a "set-back" counter for recording individual or partial runs. The other, which is inaccessible and tamperproof, records cumulative totals.

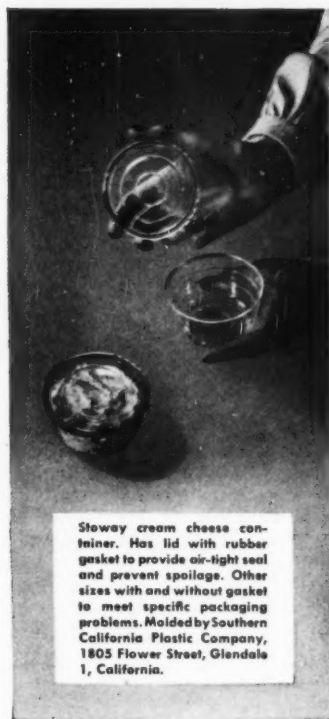
HEAT-SEALING ADHESIVE

Polymer Industries, Inc., 11-08—30th Ave., Astoria, N. Y., announces the development of a heat-sealing adhesive which can be coated on or sealed to kraft paper, pulp paper, plain or waxed glassine, waxed paper, cellophanes, diaphanes and other sheetings without the use of heat. Known as J30-2, the



Crystal clear Gruyere cheese container protects shelf life of packaged cheese and gives added sales appeal. Molded by Tri State Plastic Molding Co., Henderson, Kentucky.

MAKE YOUR DAIRY PRODUCT A SHOW-OFF



Stoway cream cheese container. Has lid with rubber gasket to provide air-tight seal and prevent spoilage. Other sizes with and without gasket to meet specific packaging problems. Molded by Southern California Plastic Company, 1805 Flower Street, Glendale 1, California.

in transparent STYRON rigid containers

... that offer ... more sales appeal for
your product — better product protection AND the advantage of re-use.



One pound re-usable, transparent cottage cheese container measures 4 x 4 x 2 3/4. Has recessed lid designed to provide a tight seal. Molded by Carnival Toy Mfg. Corp., 698 E. 142nd St., New York 54, N. Y.

coupon

The Dow Chemical Company
Plastics Division Dept. RC-7
Midland, Michigan

Please send me further information about
Styron Rigid Containers

Name.....

Company.....

Street.....

City.....State.....

Open the door to new merchandising opportunities and greater sales volume with attractive Styron rigid containers. Your product will not only stand out at the point-of-purchase, but the re-use value of Styron rigid containers acts as a constant reminder of your product and means increased repeat sales.

Take advantage of the merchandising possibilities of economical, sales-appealing Styron rigid containers ... use the coupon to find out more about these popular con-

tainers and how they will promote the sale of your product.

Styron rigid containers are currently increasing sales for butter, cottage cheese, cream cheese, sour cream, honey, and other dairy products.

Styron rigid containers can be manufactured to your individual specifications. They are also available in a wide variety of standard sizes and shapes. Write today for complete information.

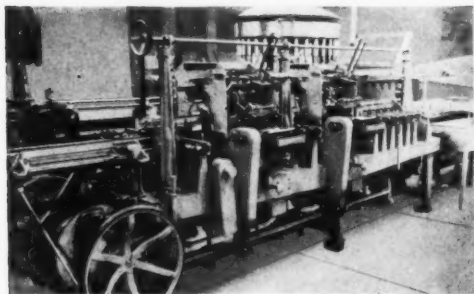


Plastics Division Dept. RC-7 • THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

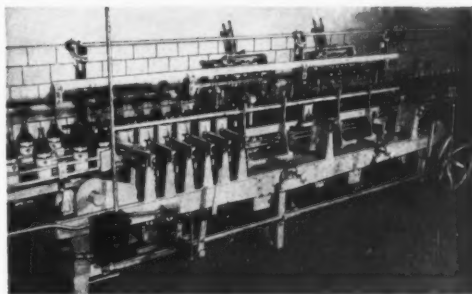
New York • Boston • Philadelphia • Washington • Cleveland • Detroit • Chicago • St. Louis • Houston • San Francisco • Los Angeles • Seattle • Dow Chemical of Canada, Limited, Toronto, Canada

NEWS OF THE WORLD

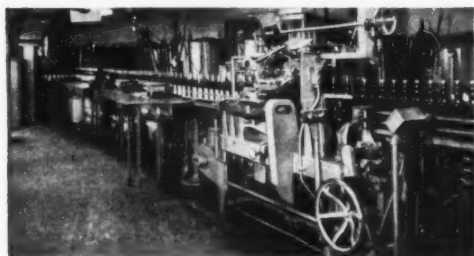
that puts you on the **BEE-LINE** to better labeling



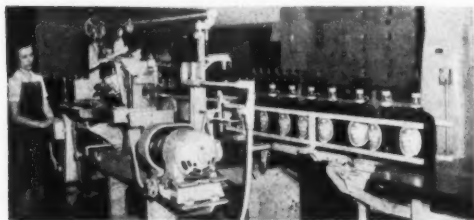
At WINE GROWERS GUILD, Lodi, California, **WORLD BEE-LINE** Labelers play a conspicuous part on all three bottling lines in this tile-walled, glass-piped bottling plant. Twin labeling stations provide two-a-second production of trim, smooth, precisely labeled Guild Wine bottles.



At ITALIAN & FRENCH WINE COMPANY, Buffalo, N. Y., this **WORLD BEE-LINE** Labeler keeps pace with the lively demand for Old Friar Brand pints and quarts. "Our winery owes much to the World Bee-Line Labeler," says the company. "It reduces operating cost and eliminates breakage. It places the labels spotlessly and precisely on our bottles."

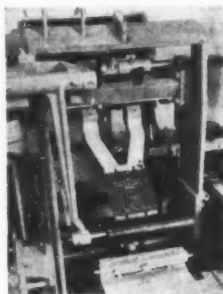


At ESBECO DISTILLING CORPORATION's fine, modern bottling plant, Stamford, Conn., this **WORLD BEE-LINE** Labeler turns out clean, well-dressed packages worthy of the Corporation's several familiar, time-honored brands.



At PETRI WINE COMPANY, Stockton, Cal., this **WORLD** Model 40 **BEE-LINE** Labeler handles the gallon and half-gallon jugs as neatly and efficiently as Petri's Model 135 **BEE-LINE** handles the smaller sizes.

WORLD BEE-LINE Labeler's new **VG METHOD** for controlled registration of labels (**VG** for Vacuum Griplinger) assures precise positioning of any label from postage stamp size up on flat surfaces or in sunken panels, or of body, neck or shoulder labels, medallions — any combination applied simultaneously.



*Many of the world's famous brands of glass packed food, catsups, condiments, drugs and cosmetics as well as wines and spirits consider the **BEE-LINE** the best Labeler in the **WORLD**. May we send you recommendations and estimates for putting your products on the **BEE-LINE** to better labeling?*

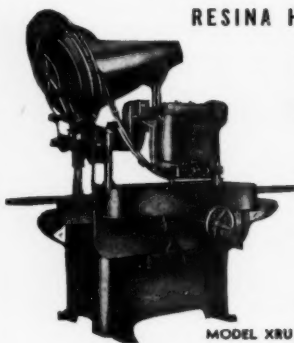
ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose
WORCESTER, MASSACHUSETTS

New York Philadelphia Pittsburgh Chicago San Francisco
Los Angeles Denver Louisville Salt Lake City El Paso
Seattle Portland Phoenix London Montreal Toronto
Winnipeg Newfoundland Vancouver Mexico City
Sydney, Australia Wellington, N.Z. San Juan, P.R.
Cruces Trujillo, D. R. Honolulu, T. H.

RESINA Cappers

RESINA HIGH SPEED



STRAIGHT LINE
SCREW CAPPER

- Flexible
- Fast
- Fully Automatic

For Further Details Send for Descriptive Folder.

MODEL XRU

OTHER MODELS AVAILABLE

RESINA AUTOMATIC MACHINERY CO. Inc.

Court & Creamer Sts.

Brooklyn 31, N. Y.

ATTRACTIVE DISPLAYS SELL MERCHANDISE!



Your best "silent salesman" is an eye-appealing Weinman container, which attracts and sells potential customers.

The illustrated transparent counter display dispenser and plastic box are ideal for stimulating business at "point of sale."



Send for samples and packaging suggestions. New illustrated catalog of trans-

parent boxes, displays, and new line of decorated metal tins available upon request.

Weinman Brothers, Inc.
MANUFACTURERS
3260 W. GRAND AVE., CHICAGO 51

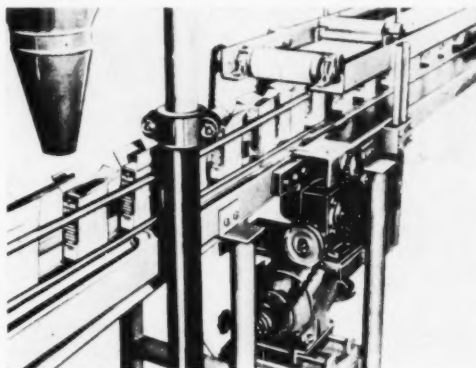
Equipment and Materials

Continued

hard, light yellow in color and melts between 79.5 and 80.5 deg. C. It is reported to be insoluble in water and is more soluble in organic solvents than natural and other commercial synthetic waxes. Its use is indicated for protective coatings and films to be deposited on various surfaces out of solvent solution. It can be used for waterproofing paper, textiles and leather, the company states.

CARTON FOLDER, GLUER AND SEALER

The Adjustable Packaging Machine Co., 1392 Niagara St., Buffalo, N. Y., announces a new low-priced adjustable machine for packaging powdered, granular or crystalline products



in a variety of carton sizes. It automatically folds, glues and seals the bottom and top of cartons, with no blocks or stools, the makers state. The "Adjustomatic" is available in both hand- and automatic-filling models, or may be used in conjunction with any independent unit. Only one operator is required for the automatic-filling model; two operators for the hand-filling type. It is reported to have a speed of up to 48 packages per minute and is said to be practical for manufacturers having small runs of multi-sized cartons.

IMPROVED LINE OF PARAFFIN WAXES

Boler Petroleum Co., 121 S. Broad St., Philadelphia, Pa., announces a new line of paraffin formulations for the paper and packaging industry, said to eliminate the necessity for using additives. These Flexowaxes have been developed for increased flexibility, gloss, transparency and water-vapor resistance. They are reported to have all the desirable properties of paraffin waxes such as greaseproofness, lack of tack, odor and taste, as well as low cost, without the disadvantage of brittleness.

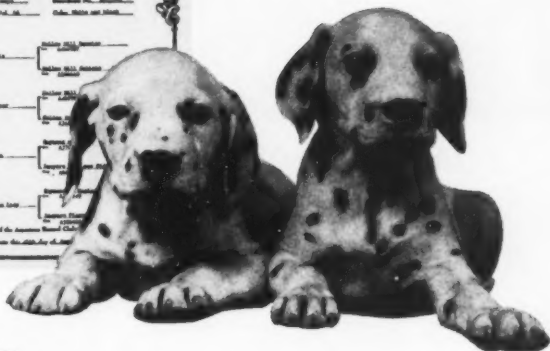
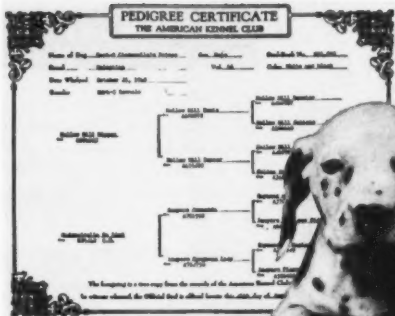
HEAVY-DUTY SEALING TAPE

McLaurin-Jones Co., Brookfield, Mass., announces capacity production of its Glaskraft sealing tape, especially recommended for the sealing of heavy cartons. Said to be four to six times stronger than ordinary sealing tape, it consists of two sheets of kraft paper laminated with asphalt, in which glass fibres are imbedded for added strength.

Its use, the company states, materially reduces breakage and carton rupture. The average tear test of this

THE DALMATIAN, originally bred to run with coaches and carriages, may suffer from technological unemployment today but he is still popular. He is a loyal, one-family dog.

The pure breed is white with either brown or black spots, round and varying in size. He should measure 19 to 23 inches in height.



For Safety in Shipping

Buy the Box with a Pedigree



BORDEN'S Grated American Cheese is one of many famous national brand products shipped by truck, rail, water or air in Union corrugated containers—the boxes with a pedigree.

Reserve strength to withstand the hazards of all forms of shipping is built into Union boxes. Rigid quality control begins in Union forests and follows production through the world's largest integrated pulp-to-container plant and four strategically located box plants.

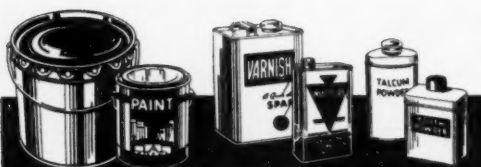
So, for safety in shipping, do as many makers of national brand products do—call on Union. 75 years of leadership in package engineering and mass production techniques is assurance you will get the right box for your product at the right price, delivered where you need it *when you need it*.

UNION Corrugated Containers

UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

Corrugated Container Plants: SAVANNAH, GEORGIA • CHICAGO, ILLINOIS • TRENTON, NEW JERSEY



QUALITY PRODUCTS sell better in QUALITY CONTAINERS

... and they get better protection, too. For best results from your containers, choose those that best promote and protect your products — sales-building, sturdy lithographed metal containers.

Here is where National Can may be of very real help to you — in basic container design, in origination of layout and illustration, and in color selection. Nearly fifty years of experience in the manufacture of lithographed metal containers backs these National Can services.

Improve your containers — make them worthy of your products by using the dependable and experienced National Can packaging service and supply. For full details, contact:

NATIONAL CAN CORPORATION

Executive Offices: 110 EAST 42nd STREET, NEW YORK 17, N. Y.

SALES OFFICES AND PLANTS: BALTIMORE, MD. CHICAGO, ILL. HARTFORD, CONN. BOSTON, MASS.
INDIANAPOLIS, IND. MANHATTAN, N. Y. CANNONBURG, PA. ST. LOUIS, MO.

FOR...

"Love at First Sight" GROOM YOUR GOODS with Ohio FABRIC BAGS



Yes, package your goods in exquisite Ohio Fabric Bags...they have the merchandising magic of Two-Way Sales—

1. Tailored, to distinctively encase your product giving it **BUY APPEAL**
2. Protects your product's beauty and factory fresh appearance assuring its **SALES APPEAL**

Styled in colorful flannel or suedene, enhanced with drawstring or snap closures you will discover they are surprisingly economical. And for a mere fraction of a penny they can be decorated with your trademark.

Let us design a fitting fabric bag for your product. Available in any size or shape. Simply send sample and we'll return it in a handsome Ohio Fabric Bag. No obligation.

Ohio

MANUFACTURING CO.

1402 Edward L. Grant Highway, New York 52, N. Y.

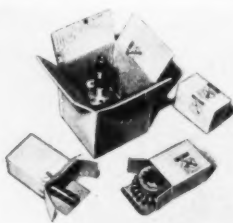
Equipment and Materials

(Continued)

tape is reported to be 55 to 60 (machine direction), as compared with a 14 tear test for 90-lb. kraft and 65 to 70 (cross machine direction) as compared with a 15 tear test for 90-lb. kraft. Its fibres are unaffected by dampness and will not rot or weaken in storage. Said to be water resistant, it can be had with waterproof gumming.

RUST-PREVENTIVE CARTONS

Nox-Rust Chemical Corp., 2431 S. Halsted St., Chicago 8, Ill., has perfected a method of impregnating chipboard and corrugated cartons with their Nox-Rust Vapor Wrapper



chemical and is now offering such cartons for the packaging of all types of metal parts, tools and appliances. The new cartons are said to eliminate temporary rust-preventive coatings and inner wrapping previously required to protect the cartons from oil or grease staining. An invisible vapor released

within the container prevents the formation of rust on metal. In conjunction with the Nox-Rust Vapor Wrapper paper in rolls and sheets, the new carton development is said to give any metal product economical protection against rust.

NEW STOCK TUMBLER

Tygart Valley Glass Co., Washington, Pa., is offering a newly designed stock tumbler in 8, 9³/₈ and 12⁷/₁₆-oz. sizes, having a capacity of 10-oz., 12-oz. and 1-lb. of jelly, respectively. The new bead finish is reported to be satisfactory for both top and side seal finish. Its graceful shape and decorative treatment suggest its suitability for re-use as a drinking glass.

HEAT-SEALING LABELS

Custom printed heat-seal labels, for use on cellophane and other transparent-film-wrapped or packaged products, obtainable in any size, color or combination of colors, are now being produced by the Geis Printing Co., 108 N. Jefferson St., Chicago 6, Ill. These labels have an instant-setting, thermo-adhesive back which sticks firmly on the film when heat is applied to the label. Any untrained person can apply the labels neatly and quickly, without special training, by use of an ordinary hand heat-seal iron. Labels are impervious to weather changes, heat and cold, dryness or dampness and once applied stick permanently so that they cannot be pulled or peeled off. The company will print labels to individual specifications and furnish a heat-seal iron free with orders.

CONVEYOR-MARKER

Algene Marking Equipment, Inc., New York, announces a conveyor-marker said to effect clear, even, precision marking on packages as they move along conveyors through packing and sealing machines. The mechanically simple marker is said to be quickly adjustable for spot marking and may also be used manually, or on stitching machines. Maximum printing area is 3 in. high and 8 in. long. This Algene conveyor-marker utilizes two ink rollers and is ruggedly built.

Pneumatic

carries
it...

FROM
HERE

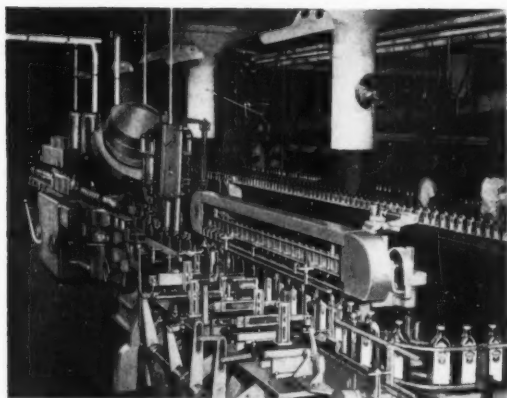
TO
HERE

at "Lower Cost
per Container"

*Drug and Pharmaceutical
producers using
Pneumatic Equipment*

Walgreen Company
Vick Chemical Co.
E. R. Squibb & Sons
McKesson & Robbins, Inc.
Johnson & Johnson
Wm. R. Warner & Co.
Sharpe & Dohme
Lederle Laboratories, Inc.
Hynson, Westcott & Dunning, Inc.
Sterling Drug, Inc.

Parke, Davis & Co.
British Cod Liver Oils, Ltd.
Rexall Drug Company
L. Perrigo Co.
White Laboratories, Inc.
Whitehall Pharmacal Co.
Miles Laboratories, Inc.
The Upjohn Company
Chattanooga Medicine Co.
Nelson Baker & Co.
Louisiana Drug Co., Inc.
Henry K. Wampole & Co., Inc.
Merck & Co., Inc.
Laboratoire Caze



Installation of Pneumatic equipment at Walgreen's Chicago plant

One of the least of Walgreen's worries is keeping down the cost and maintaining the efficiency of their bottling of MINOYL. They've settled that for good—the way other leaders in drugs and pharmaceuticals, as well as foods, wines and liquors, etc., have settled it—by giving Pneumatic equipment the job of "taking over" filling, capping and labeling.

Their experience with Pneumatic machines runs true to form. They get smoother, speedier, trouble-free money saving performance day by day, year by year. They get it because Pneumatic is built from the ground up to give it—because Pneumatic equipment is more soundly designed, more skilfully engineered, more accurately and durably constructed. Follow the leaders, to Pneumatic. PNEUMATIC SCALE CORPORATION, LTD., 82 Newport Avenue, Quincy 71, Massachusetts. Branch Offices in New York, Chicago, Los Angeles, San Francisco and Seattle.

PNEUMATIC

PACKAGING AND BOTTLING MACHINERY

Correct from Any Angle

**MACK PLASTIC
MOLDED CLOSURES
AND PACKAGING
SPECIALITIES**



STANDARD SIZES DELIVERED FROM
STOCK — FAST SERVICE ON CUSTOM
PACKAGING AND SEALS

Count on MACK for quick delivery of molded closures — in all sizes and in any quantity. Choose from an interesting variety of modern stock designs. And for special packaging ideas, consult MACK technicians. Their sales-proved experience covering products of every kind is available to you without obligation. Samples of closures and prices sent on request. Just call or write Mack Molding Company, Inc., 160 Main Street, Wayne, New Jersey.

Mack
**MOLDED
EXCELLENCE**



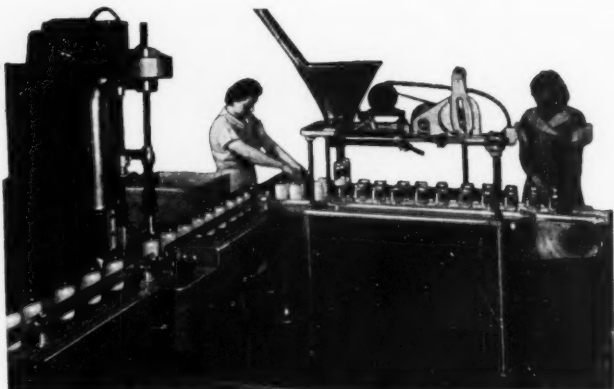
THREE FULLY EQUIPPED
PLANTS TO SERVE YOU

OUR 50th YEAR

ELGIN TWIN-FILLER WITH SEMI-AUTOMATIC CAPPER

THE FILLER . . . Compact, speedy, accurate. Fits any production set-up. Easily cleaned, quickly adjusted for changes of pack or container sizes. Fills products varying from liquids to heavy foods.

THE CAPPER . . . As handy as filler for change-over. Automatically timed for smooth production always. Built to take varying size screw caps and containers. Automatic feed adds to efficiency



Ask any ELGIN user—or write us
directly for details.

Relish, Mustard, Peanut Butter, Jams, Jellies, Mayonnaise and similar products.

ELGIN MANUFACTURING COMPANY, 200 Brook Street, Elgin, Illinois



Double life for display...with Technicrome!



1 Lithographic impressions in color on paper for ordinary displays...

2 --can also be printed from the same plates on sheets of transparent plastics...

3 --which, mounted in a frame and a shadowbox with backlighting, provide a realistic photographic display in full color--and also cost less than enlarged transparencies, or any similar medium.

This reproduction process is called Technicrome, and is exclusive with Einson-Freeman... Non-fading translucent inks insure realistic colors with long life, and more accurate detail than the standard color-film now obtainable only in small size.

Technicrome also makes available an additional lighted three-dimensional deluxe display... as a by-product or supplement to a regular display print order, at a fraction of the usual cost for such special displays if produced separately.

Technicrome permits an attractive and effective display of merchandise and models, of lines which cannot be carried in stock by dealers or agents... an impressive illuminated catalog in limited editions.

We will be pleased to show samples and suggest applications of Technicrome... to make your selling easier, more effective, and more economical.



Einson-Freeman Co. INC.
Illuminating lithographers

STARR & BORDEN AVES., LONG ISLAND CITY 1, NEW YORK

DECEMBER 1949



Plants and People

Announcement has just been made by **J. H. Croness**, president, that starting in February, 1950, **W. C. Ritchie & Co.**, Chicago, will engage in the manufacture of folding cartons, extending the company's 83 years of experience in set-up boxes to a new field. Distribution will be on a national basis, with sales representatives in the larger cities. The company will continue to manufacture set-up, transparent and round boxes, fibre cans, tubes, spools, etc. **Harold Bentz**, long experienced in folding carton manufacture, will be superintendent of the new Folding Carton Division.

The Food Machinery & Chemical Corp. has announced the appointment of **Dr. Harold L. Link** as sales manager of its **Sprague-Sells Div.**, Hoopeston, Ill. Dr. Link has been with the company since 1942 and fills the vacancy left by the late Thomas Martin. At its recent annual sales meeting, the following announcement of changes in sales representation was made: **Dale Davis** will be located in Greenville,

Dr. H. L. Link

Tex., covering the northern half of Texas, Louisiana, Alabama and Arkansas. **Jim Ludwig**, Rochester, N. Y., will take over the states of Maine, Massachusetts, New Hampshire and Vermont.

Construction has begun on a new \$1,250,000 plant for the **Lord Baltimore Press**, Baltimore, Md., lithographers and printers. Planned as a single-level plant, the new structure will occupy four acres of floor space, comprising 176,000 sq. ft., on a 33-acre site that will permit further expansion as requirements demand. When completed, the new plant is expected to be one of the most modern in existence.

Arthur Colton Co., Detroit, makers of pharmaceutical and packaging machinery, have announced the appointment of **Gustie Stevenson** as chief engineer for the company. Mr.



G. Stevenson

Stevenson was formerly with the F. J. Stokes Machine Co. of Philadelphia. Also announced by the firm was the promotion of **Al Kath**, long-time Colton employee, to the position of chief development engineer and **Kenneth E. Rogers** has been named director of sales.

American Can Co. has announced the purchase of a 43-acre site in Baltimore where it expects to have a plant completed within a year for the production of paper milk containers. The new plant, which will occupy approximately 150,000 sq. ft., will serve Washington and the District of Columbia, Maryland, part of Pennsylvania, Virginia, North and South Carolina, Georgia and Alabama. By supplying these areas, heretofore supplied by the firm's factories in Jersey City and Brooklyn, the new factory will make larger supplies of paper milk containers available to all dairy customers on the Atlantic Seaboard and in the Southern states.

Morris Paper Mills have purchased a modern plant at Melrose Park, Ill., and expect to move their Imperial Box Division there shortly. The new plant consists of two structures occupying about 106,000 sq. ft. of space.

The Package Machinery Co., East Longmeadow, Mass., builder of packaging machinery, moved its Chicago office to 528 N. Western Ave. Sales will be handled by **C. R. Strehlau**, **W. H. Keil**, **Lee Evans** and **Theron Russell**. Service men are **William Kerber** and **Fred Borgardt**.

Harry Kendall recently joined **F. E. Mason & Sons**, Batavia, N. Y., makers of embossed seals and tags, and will have charge of their new sales office at 331 Madison Ave., New York.

William R. Johnson, who recently joined **The Gardner Board & Carton Co.**, Middletown, Ohio, has been appointed chief industrial engineer of the company. Mr. Johnson's former associations were with American Bosch Corp. and General Electric Co.

Ralph W. Mudgett, manager of the Chicago office of **Nashua Gummed & Coated Paper Co.**, Nashua, N. H., recently retired after 30 years with the company. He is to be succeeded by **Richard L. Newcomb** and **Charles E. Leake**.

Sigmund Ullman Co., Division of **Sun Chemical Corp.**, have moved their laboratories and service station from the Bronx to Long Island City, N. Y., near their offices. The laboratories and service stations of two other Sun Divisions, **Eagle Printing Ink Co.** and **Frank H. Stevens Co.**, have also moved to this new location.

The Ecusta Paper Corp., Pisgah Forest, N. C., has announced the election of **Harry H. Straus** as chairman of the board of directors and **General Lucius D. Clay**, U. S. Army, Ret., as president.

James W. Kane has been appointed general manager of operations for the **Seaboard Container Corp.**, producers of shipping cases, Bristol, Pa. Mr. Kane will direct the company's operations at the Reading mills and at the fabricating plants in Bristol and Newark. His headquarters will be in Bristol, at the company's new plant. Prior to joining Seaboard, Mr. Kane was Eastern division plant manager for Container Corp. of America.

The appointment of **Floyd J. Gunn** as head of coatings sales has been announced by **Donald L. Gibb**, sales manager of the plastics division of **The Dow Chemical Co.**, Midland, Mich. Mr. Gunn has been with the company since 1939.

Charles C. Smith has been promoted to the position of general sales manager of the tape division of the **Minnesota Mining & Mfg. Co.**, St. Paul, Minn.

Addition of a new research department for the **Paper Products Division** of the **Portco Corp.**, Vancouver, Wash., for the testing of present products and development of new

NO ICE REQUIRED for Fresh Seafood Shipments

One of the most significant packaging developments in the last decade is the H & D INSULPAK*, a corrugated box in which coast-to-coast airborne shipments of pre-cooled foods are made possible—without refrigeration. INSULPAK now makes all America a vast potential market for seafoods of all kinds. Daily delivery of fresh, perishable foods everywhere is now accomplished by this new, insulated package. It is hoped that it will soon be available for wide-scale distribution.



This Shipping Box TELLS and SELLS

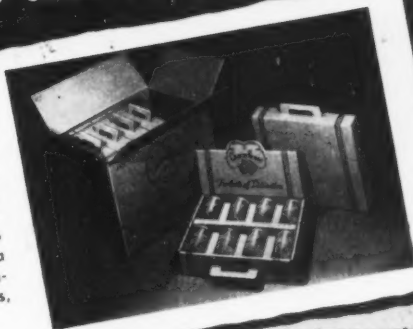
Here's the famous Duplex shipping-display box developed by H & D for those manufacturers who wish to display their products—effectively and economically—at point of sale. It's a regular corrugated shipping box which the dealer opens to form a colorful counter display with a sales message that attracts attention and makes people buy. The H & D Duplex shipping-display box protects your product in shipment—sells your product in the retail store.



Good Packaging MAKES GOOD PRODUCTS BETTER

H & D PREPAK* Increases Unit of Sale

Many items, such as china and glassware, can be prepared at the factory into selling units that step up sales. Instead of selling one item at a time, Prepak* sells six, eight or twelve. Prepak promotes "take with" purchases, needs no repacking. The package illustrated contains a set of 8 glasses. It is made of light blue embossed corrugated board, printed in two colors, red and dark blue.



"REG. U. S. PAT. OFF."

REG. U. S. PAT. OFF.

H & D
BOXES

FOR MORE INFORMATION, WRITE

HINDE & DAUCH

Authority on Packaging

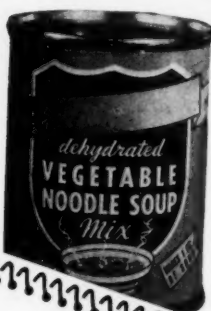
Executive Offices: 4906 Decatur St., Sandusky, Ohio

FACTORIES IN:

Baltimore 13, Md. • Buffalo 6, N. Y. • Chatham, Ontario
Chicago 32, Illinois • Cleveland 2, Ohio • Detroit 27,
Mich. • Gloucester, N. J. • Hoboken, N. J. • Kansas
City 19, Kansas • Lakeland, N. C. • Montreal, Quebec
Richmond 12, Va. • St. Louis 15, Mo. • Sandusky, Ohio
Toronto, Ontario • Watertown, Mass.

CASE HISTORY #2

The Co., nationally known food manufacturers, phoned EDLAW: Have export order for one million cans soup mix—Deadline shipping date—Hot weather stopped our packaging line!



Have you air-conditioned plant? High speed filling equipment? Automatic can closing? Labeling machine? Can you take over this order and deliver on time? Will costs be in line?

All questions answered "yes"! Bulk material and supplies were started in—and finished cases were rolling out—on schedule—as promised!

Memo to
Contact
The Edlaw
Co.

**Contract
Packaging**

AT PRE-DETERMINED
COST

88-61 76th AVENUE
GLENDALE, L. I., N. Y.

FLEXKIN

ACME'S moisture vapor barrier

Investigate FLEXKIN*, strongest, most effective MVB, widely used for industrial packaging and particularly by military services under specifications JAN-P-131 and AN-B-20

Consultation without
obligation invited on any film
or foil laminations.

ACME BACKING CORP.
BROOKLYN 6, N. Y.

*Reg.

Plants and People

Continued

products has been announced. A large part of the work done at the Vancouver plant is on twines and cords made to customer specifications. **Victor Rick**, technical director, will head the new department.

Union Bag & Paper Corp. announces the appointment of **Theodore J. Gross** as technical advisor to the Corrugated Box and Board Sales Division. Mr. Gross is well known in the container industry, having been president of Container Laboratories, Inc., and managing director of the Shipping Container Institute when this organization made a three-year study on the causes of rail-freight loss and damage to merchandise shipped in fibre boxes.



T. J. Gross

The Atlanta, Ga., office of **Shellmar Products Corp.**, Mt. Vernon, Ohio, has been moved to 712 W. Peachtree St., N. W. **Jack Rushin** and **Brooks Pearson** will continue to represent Shellmar in the Southeastern states, assisted by **Marion P. Rivers** in Atlanta, **Frank B. Dove** in Charlotte, N. C., and **Ted S. Newman** in Miami, Fla.

J. S. Lee has been appointed assistant manager of the Middletown, Ohio, division of **Pollock Paper Corp.** Mr. Lee was formerly assistant to **J. V. Melton**, sales director for the waxed paper division. **H. G. Abernathy** and **Joseph Rosenstein** have been named as Mr. Melton's assistants. **B. F. Lacy**, vice president of the company, will continue to exercise general supervision over the company's Eastern operations.

W. F. Graebe has been appointed divisional comptroller of the **International Printing Ink Division of Interchemical Corp.**, New York. He is taking over the duties of comptroller from **Claud Brown**, whose time is now occupied by his broadened responsibilities as divisional vice president of IPI.

John K. Bruce, designer of equipment for the process industries, heads the **Bruce Engineering Corp.**, San Francisco, recently formed to produce specialized marking and handling equipment for food-packing plants, breweries and other packaging industries. Production and sales of Bruceway equipment will be handled by the other officials of the company, **Frank G. Chambers**, **Charles A. Anderson** and **Robert L. Chambers**, who are also executives of the **Magna Engineering Corp.** The firm also maintains offices in Pasadena, Calif.



J. K. Bruce

Simplex Packaging Machinery, Inc., is the new name adopted to replace the former title, **Simplex Wrapping Machine Co.**, according to **Rene Gaubert**, president of the Oakland, Calif., firm. The change was made, he said, to indicate the wider scope of the company's operations.

Wabash Fibre Box Co., Terre Haute, Ind., recently celebrated the 25th anniversary of the founding of the company. **Ward S. Hubbard**, who served as treasurer and general manager of the company when it was organized in

Plants and People

(Continued)

1924, is now president of Wabash Fibre as well as of Weston Paper & Mfg. Co., an affiliate of Wabash Fibre.

The appointment of **S. K. Bradley** as assistant director of multiwall bag sales has been announced by **Union Bag & Paper Corp.**, New York. **J. J. Patterson**, former multiwall sales representative, succeeds Mr. Bradley as Eastern district sales manager for multiwall bag sales.



S. K. Bradley

John A. Silver, Bernard Lester and Frank W. Hankins have announced the formation of the management engineering firm of **Lester, Hankins & Silver**, with offices at 140 Cedar St., New York, and 1605 Race St., Philadelphia. They will specialize in

the management, distribution and sales problems of manufacturers and distributors of machinery, equipment and technical products.

Cameron Machine Co., Brooklyn, announces the appointment of **Charles A. Walmsley** as vice president in charge of production.

Charles A. Breskin, publisher of **MODERN PACKAGING**, was a speaker at both the British and French national packaging shows early in October. At the First National Packaging Exhibition, in Manchester, England, and at the Salon de l'Emballage, in Paris, he discussed the requirements of packaging for the American market.

J. W. Wilson Glass Co., Inc., announces the removal of their general offices, show room and warehouse to 55 N. Fourth St., Brooklyn.

Acme Paper Co., Inc., Memphis, Tenn., is moving to a new plant at S. Bellevue & Orgill Sts. which will give about 25% more space for the manufacture of wrapping paper, paper boxes and household paper goods.

Continental Can Co. has announced the following appointments to their Plastics Division at Cambridge, Ohio: **Dorward C. Witzke**, formerly assistant to the president, has been named general manager; **Alex Geldhof** has been made product sales manager of industrial laminates.

The portfolio exhibit of form letters and mailing pieces used in the direct-mail system of **Ever Ready Label Corp.**, New York and Belleville, N. J., received the "Best of Industry" award in the Printed Specialties Division, at the recent Direct Mail Advertisers Assn. convention at Chicago.

Schottland Vibration & Shock Div., New York Testing Laboratories, Inc., New York, has been organized to deal exclusively with mechanical vibration and shock problems.

Pack-It, Inc., contract packagers, are moving from the Bronx, N. Y., to larger quarters at 109 Monroe St., Newark, N. J.

Samuel S. Smith has been appointed general manager of the liquid filling equipment division of **MRM Co., Inc.**, Brooklyn, makers of packaging machinery.

Burton H. Greenwood, formerly technical director and sales representative for Thomas W. Dunn Co., has joined

ROTOGRAVURE CYLINDERS

A Complete Service
All Under One Roof and
One Management Responsibility

- Cylinder Machining
- Copper Depositing and Polishing
- Photography and Art Work
- Cylinder Engraving
- Hard Chromium Plating

CHAMBERS-STORCK COMPANY, INC.

751 North Main Street
Norwich, Conn.

Have You a
Marking Problem?

MARKEM can help you

Appearance and legibility are essential to good marking but speed, versatility and low cost are equally important. Markem's 38 years of experience building machines for package and product marking and developing quick-drying inks, have resulted in cost saving, time saving methods.

WHEN YOU WANT IT, AS YOU WANT IT—

With Markem machines marking is done in your own plant, as you want it, when you want it. No problem of overstocked or understocked label or box inventories. No outside printing costs.

Send us samples of your package or product, with the variable information to be imprinted. Or have a Markem representative call.

MARKEM MACHINE CO., KEENE, N. H.

Please have your Markem representative call ☐
We are sending samples of product ☐ package ☐
with information to be imprinted.


Name

Company

Address

CONTINUOUS DESIGN
Rubber
PRINTING ROLLERS

for aniline printing of
ALL-OVER DESIGNS

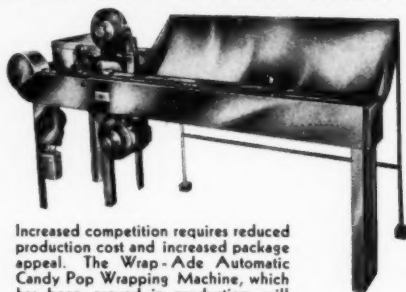


MOSSTYPE
ROLLER CO. INC.

• Write for descriptive literature

33 FLATBUSH AVE. BROOKLYN 17, N. Y.

WRAP-ADE AUTOMATIC CANDY POP WRAPPING MACHINE



Increased competition requires reduced production cost and increased package appeal. The **Wrap-Ade Automatic Candy Pop Wrapping Machine**, which has been proved in production, will solve your marketing problems, as well as protect your product.

COMPARE THESE OUTSTANDING FEATURES:

- Uses 50% less Cellophane.
- SPEED—100 Pops per minute, One Operator. 150 Pops per minute, Two Operators.
- Completely Heat Sealed Package.
- Machine Simple in Construction and Operation.
- Adjustable Within Limits. (Send us your samples and we will advise if interchangeable Parts can be supplied to Wrap your complete line.) • Short Delivery.

Write today for full information on this and other **Wrap-Ade Package Machinery**.

wrap-ade

MACHINE CO., INC.
83 VALLEY STREET
BELLEVILLE, NEW JERSEY
PHONE — BELLEVILLE 2-6150-1

Plants and People

Continued

the **Burtonite Co.**, Nutley, N. J., manufacturers of adhesives, in a similar capacity.



H. Steindler

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happy holidays!

*Winter time . . . Holiday time . . .
Christmas time throughout the world!*

Human hearts everywhere are stirred to cheer
the sorrowful—to feed the hungry—to encourage
the downcast—to bring songs for sighing—
laughter of little children to dry man's tears.

Over the snow covered prairies...up and down the
city's teeming streets—in home, school, office,
factory, the Spirit of Christmas walks again.

Let each and everyone of us open the door of
our hearts that this Spirit may gladden our own
and the lives of those around us.

J. L. FERGUSON COMPANY

PACKOMATIC

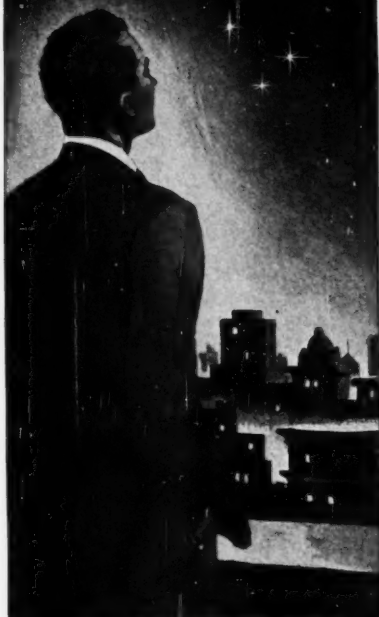
T. M. Reg.

PACKAGING MACHINERY DESIGNERS & BUILDERS, SINCE 1921

ROUTE 52
AT REPUBLIC AVENUE
JOLIET, ILLINOIS

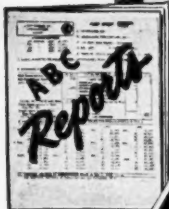
DECEMBER 1949

Oh! **WHERE**... *is my wandering, ad tonight?*



SEND THE RIGHT MESSAGE TO THE RIGHT PEOPLE

Paid subscriptions and renewals, as defined by A.B.C. standards, indicate an audience that has responded to a publication's editorial appeal. With the interests of readers thus identified, it becomes possible to reach specialized groups effectively with specialized advertising appeals.



THERE are two ways to buy advertising space. One is the guesswork-opinion method. The caption above is the mournful song of an advertiser who is still selecting media the way it was done before World War I, when there were no standards for the circulations of published media and when there was no accepted and approved method of auditing circulations. In those days, advertisers O.K.'d their proofs and sent out their advertising with a prayer that some of their sales messages would find their way to market.

The other way to buy space is the factual, know-what-you-get-for-your-money method. Today advertisers can start their investments on a basis of facts by selecting media with the help of the information in the reports issued by the AUDIT BUREAU OF CIRCULATIONS. This cooperative and nonprofit association of 3300 advertisers, advertising agencies and publishers, organized in 1914, has established standards that make it possible to evaluate the circulations of published media. The A.B.C. maintains a large staff of experienced and specially trained circulation auditors who make annual audits of the circulations of publisher members. A.B.C. reports give the facts thus obtained.

Here are some of the audited facts about business papers that A.B.C. reports tell the advertiser:

- how much paid circulation;
- how much unpaid;
- an occupational or business breakdown of subscribers;
- where they are located;
- how much subscribers pay;
- whether or not premiums are used;
- how many subscribers are in arrears;
- what percentage of subscriptions are renewed.

Those who buy advertising on the basis of this factual information, as given in A.B.C. reports, do not have to speculate about the distribution of their sales messages. They **KNOW** where and to whom their advertising goes. That is why this business paper is a member of the AUDIT BUREAU OF CIRCULATIONS. Ask for a copy of our A.B.C. report and then study it.

MODERN PACKAGING

122 E. 42nd Street

New York 17, New York

A.B.C. REPORTS—FACTS AS THE BASIC MEASURE OF ADVERTISING VALUE

Finishing Touch



SEAL-SPOUT*

Easy Opening • Easy Closing • Easy Pouring

SEAL-SPOUTS add these three plus-values to "ELECTRASOL" packages produced by ECONOMICS LABORATORY, INC.

In addition, SEAL-SPOUTS protect package contents against moisture and dust after the package has been opened for use.

Let us show you what SEAL-SPOUTS will do for your product; send us one of your packages. We'll insert a SEAL-SPOUT and return it.

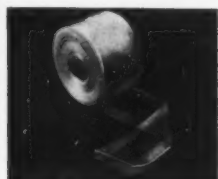
*T.M. Reg. U.S. Pat. Off.



SEAL-SPOUT CORPORATION

363 Jelliff Ave., Newark 8, N. J.

POLYETHYLENE



PACKAGING FILM



from the West Coast's only producer

Here are a few of the products now packaged in polyethylene film:

ball bearings
cakes
candy
chemicals
clothing
cookies
cosmetics
dairy products
fertilizers
fresh foods
frozen foods
meats
metal parts
peat moss
pharmaceuticals
poultry
powdered foods
putty
silverware
sporting equipment
vegetables

A top quality product and fast service are what western users of polyethylene packaging film demand. And they get exactly that from Extruders, Inc., the West Coast's sole extruder of this new, amazing packaging film.

Polyethylene film fills the demand for a packaging material with chemical inertness, lightness of weight, toughness, tear-strength, low-temperature flexibility, heat sealability, water vaporproofness, and freedom from taste, odor and toxicity.

Standard widths and gauges stocked for immediate shipment:

Widths	3" to 54"
Gauges	1½ to 8 mils
Shapes	layflat tubing
	gusseted tubing
	flat film (single ply)

Also available, on special order, in colors (opaque or transparent) and in special widths and gauges.

OTHER PACKAGING FILMS

Extruders, Inc. is the prime West Coast supplier of extruded packaging films made of vinyl, acrylonitrile vinyls and S-polymers.

Write for Price List Now



EXTRUDERS, INC.

8509-15 Higuera Street Culver City, Calif.

CONTINUOUS DESIGN
Rubber
PRINTING ROLLERS
for aniline printing of
ALL-OVER DESIGNS

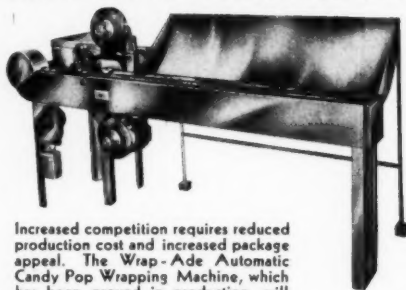


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- Completely Heat Sealed Package.
- Machine Simple in Construction and Operation.
- Adjustable Within Limits. (Send us your samples and we will advise if Interchangeable Parts can be supplied to Wrap your complete line.)
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Christmas time throughout the world!*

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the sorrowful—to feed the hungry—to encourage
the downcast—to bring songs for sighing—
laughter of little children to dry man's tears.

Over the snow covered prairies...up and down the
city's teeming streets—in home, school, office,
factory, the Spirit of Christmas walks again.

Let each and everyone of us open the door of
our hearts that this Spirit may gladden our own
and the lives of those around us.

J. L. FERGUSON COMPANY

PACKOMATIC

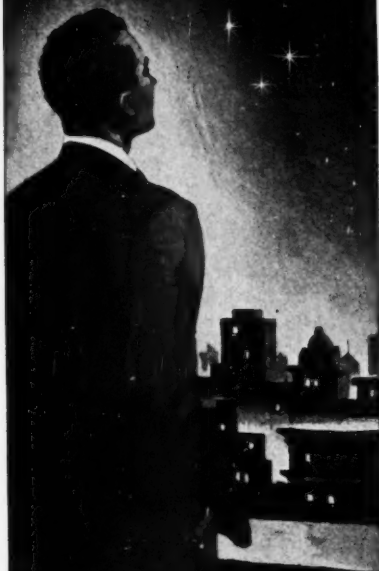
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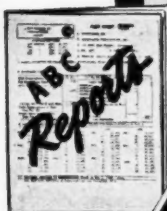
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SEND THE RIGHT MESSAGE TO THE RIGHT PEOPLE

Paid subscriptions and renewals, as defined by A.B.C. standards, indicate an audience that has responded to a publication's editorial appeal. With the interests of readers thus identified, it becomes possible to reach specialized groups effectively with specialized advertising appeals.



THERE are two ways to buy advertising space. One is the guesswork-opinion method. The caption above is the mournful song of an advertiser who is still selecting media the way it was done before World War I, when there were no standards for the circulations of published media and when there was no accepted and approved method of auditing circulations. In those days, advertisers O.K.'d their proofs and sent out their advertising with a prayer that some of their sales messages would find their way to market.

The other way to buy space is the factual, know-what-you-get-for-your-money method. Today advertisers can start their investments on a basis of facts by selecting media with the help of the information in the reports issued by the AUDIT BUREAU OF CIRCULATIONS. This cooperative and nonprofit association of 3300 advertisers, advertising agencies and publishers, organized in 1914, has established standards that make it possible to evaluate the circulations of published media. The A.B.C. maintains a large staff of experienced and specially trained circulation auditors who make annual audits of the circulations of publisher members. A.B.C. reports give the facts thus obtained.

Here are some of the audited facts about business papers that A.B.C. reports tell the advertiser:

- how much paid circulation;
- how much unpaid;
- an occupational or business breakdown of subscribers;
- where they are located;
- how much subscribers pay;
- whether or not premiums are used;
- how many subscribers are in arrears;
- what percentage of subscriptions are renewed.

Those who buy advertising on the basis of this factual information, as given in A.B.C. reports, do not have to speculate about the distribution of their sales messages. They **KNOW** where and to whom their advertising goes. That is why this business paper is a member of the AUDIT BUREAU OF CIRCULATIONS. Ask for a copy of our A.B.C. report and then study it.

MODERN PACKAGING

122 E. 42nd Street

New York 17, New York

A.B.C. REPORTS—FACTS AS THE BASIC MEASURE OF ADVERTISING VALUE

Finishing Touch



by

SEAL-SPOUT*

Easy Opening • Easy Closing • Easy Pouring

SEAL-SPOUTS add these three plus-values to "ELECTRASOL" packages produced by ECONOMICS LABORATORY, INC.

In addition, SEAL-SPOUTS protect package contents against moisture and dust after the package has been opened for use.

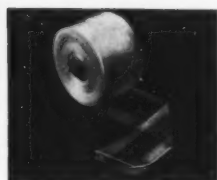
Let us show you what SEAL-SPOUTS will do for your product; send us one of your packages. We'll insert a SEAL-SPOUT and return it.

*T.M. Reg. U.S. Pat. Off.

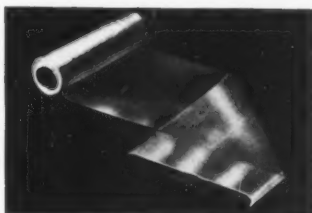


SEAL-SPOUT CORPORATION
363 Jelliff Ave., Newark 8, N. J.

POLYETHYLENE



PACKAGING FILM



from the West Coast's only producer

Here are a few of the products now packaged in polyethylene film:

ball bearings
cakes
candy
chemicals
clothing
cookies
cosmetics
dairy products
fertilizers
fresh foods
frozen foods
meats
metal parts
peat moss
pharmaceuticals
poultry
powdered foods
putty
silverware
sporting equipment
vegetables

A top quality product and fast service are what western users of polyethylene packaging film demand. And they get exactly that from Extruders, Inc., the West Coast's sole extruder of this new, amazing packaging film.

Polyethylene film fills the demand for a packaging material with chemical inertness, lightness of weight, toughness, tear-strength, low-temperature flexibility, heat sealability, water vaporproofness, and freedom from taste, odor and toxicity.

Standard widths and gauges stocked for immediate shipment:

Widths	3" to 54"
Gauges	1½ to 8 mils
Shapes	layflat tubing gusseted tubing flat film (single ply)

Also available, on special order, in colors (opaque or transparent) and in special widths and gauges.

OTHER PACKAGING FILMS

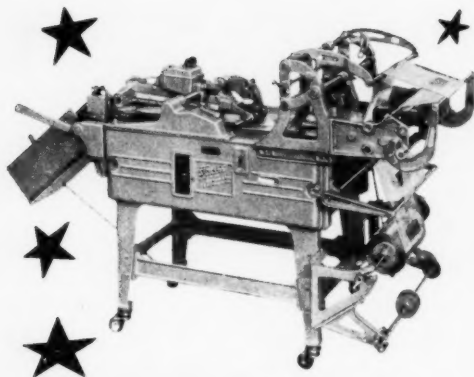
Extruders, Inc. is the prime West Coast supplier of extruded packaging films made of vinyl, acrylonitrile vinyls and S-polymers.

Write for Price List Now



EXTRUDERS, INC.

8509-15 Higuera Street Culver City, Calif.



CONTROL BOTH—

Product and Container

In your own plant you control every process in the manufacture of your product to the end that you get exactly what you want—but what about the package in which you sell your product? Does it always measure up to your expectations? Does it display your product to best advantage? It is mighty important that the ultimate consumer see your product in its best dress.

With a **SIMPLEX** Bag-making Machine in your own plant, you exercise absolute control over the quality of the bags, you depend upon no one for delivery—you make up as many bags as you wish from plain or printed roll stock—your regularly employed help operates the **SIMPLEX**.

A wide range of attachments is available, such as: Electric eye control; heat seal labeller; bottom crimper; tube maker; brand name imprinting and dating attachments. We will gladly make recommendations if you will tell us about your packaging problems.

Simplex

PACKAGING MACHINERY INC.
534 23rd AVENUE • OAKLAND 6 • CALIFORNIA



For Your Information

The **Folding Paper Box Assn. of America**, Chicago, is sponsoring a study of shipping practices relating to weight densities of folding carton bundles and containers to see what methods can be developed to reduce costs and other transportation difficulties. A task committee for the study has been appointed and **G. I. Brown**, industrial engineer of **Gardner Board & Carton Co.** is making the initial surveys for the committee.

The **Can Manufacturers Institute** announces the appointment of **Don Callahan** as merchandising consultant, with headquarters at their New York office, 60 E. 42 St. He comes to CMI with over 10 years of experience in advertising, sales and merchandising.



D. Callahan

For the information and guidance of shippers and industrial packaging engineers, the **Wirebound Box Mfrs. Assn.** has published a new booklet entitled "What to Expect from Wirebound Boxes and Crates."

The booklet is profusely illustrated to show construction principles and basic styles. It also contains shippers' reports of their accomplishments with wirebound shipping containers actually in use for a large variety of industrial products. Copies of the booklet may be obtained without cost by writing to the association at 105 S. LaSalle St., Chicago.

American Management Assn. has published a complete bibliography of its publications during the past 18 years. Entitled, "Progress in Seven Fields of Management—1932-1949," the bibliography covers the research studies and 600 publications in personnel and industrial relations, insurance, marketing, office management, production, finance and packaging. The booklet may be obtained by writing the association at 330 W. 42 St., New York.

The use of plastic materials in packaging automotive parts was the subject of a speech given by **John S. Saylor**, packaging engineer, Buick Motor Division, General Motors Corp., at the recent meeting of the Michigan division of **Industrial Packaging & Materials Handling Engineers**. This division elected the following officers to serve the 1949-50 term: **Isaac E. Thomas**, Ford Motor Co., president; vice presidents, **F. F. Holt** of G.M.C. Truck & Coach Div., **Walter Ewend** of The Budd Co. and **Edwin F. Avery** of Fruehauf Trailer Co.; secretary, **LaVerne D. Cantine**, Eddy Paper Co.; treasurer, **Randall E. Crabb**, Acme Steel Co.

Manufacturers who wish to enter the 14th annual 5-cent to \$1 Packaging Contest sponsored by **Variety Merchandiser Publications** are reminded the contest deadline is Jan. 31. Products introduced to syndicate variety stores in new or redesigned packages during 1949 are eligible and may be entered by the manufacturer, distributor, advertising agency, package designer or package supplier. Awards are made in six merchandise divisions: cosmetics and toilet goods; stationery; games and toys; notions and allied lines; soft goods including ready-to-wear; household and hardware and miscellaneous. Packages are judged on their display value, protection of contents, information

Clear to See



CLEAR TO SEE. You sell it . . . send it . . . without even opening the package. That's what dealers do who carry glasses in handsome nest units with tops and sides of tough, crystal-clear Kodapak Sheet. Shoppers feast their eyes; know what they're buying. Merchandise stays clean and bright—protected from store stockroom to home shelves.

Two basic forms of Kodapak Sheet are available: Kodapak I Sheet, cellulose acetate, gauges up to 0.060"; Kodapak II Sheet, cellulose acetate butyrate, gauges up to 0.002". Both are made under the same rigid conditions and to the same high standards as Kodak photographic film base.

If you wish further information about Kodapak Sheet, its fabrication, and end uses, consult your nearest representative, or write Kodak. If your problem is particularly complicated, a day or two in the Kodapak Demonstration Laboratory in Rochester will prove helpful.

Cellulose Products Division, Eastman Kodak Company, Rochester 4, N. Y. Sales offices in New York, Chicago. District sales representatives in Cleveland, Philadelphia, Providence. Pacific Coast distributor: Wilson & Geo. Meyer & Co., San Francisco, Los Angeles, Portland, Seattle. Canadian distributor: Paper Sales, Limited, Toronto, Montreal.

FOR THE DISPLAY YOU WANT . . . THE PROTECTION YOU NEED

Kodapak Sheet

"Kodapak" is a trade-mark

Kodak
TRADE-MARK

FILLMASTER VIBRATORY FILLER (HEAVY DUTY)

Nationally known firms have chosen this unit because of the trouble-free vibratory feature which improves their weight accuracy and filling speed on dry and semi-dry products, such as cereals, candies, pop corn, nut meats, bread crumbs, seeds, spices, tea, coffee, (all grinds), powders, cake mixes, fresh and frozen peas, etc.

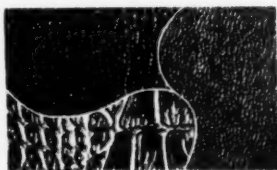
Gram fraction to 10 pounds
3 to 120 fills per minute
No bridging
No breakage of delicate products
Inexpensive
Maintenanceless

Also available:
Product Settling Table
Automatic Container Feeder Attachment
Automatic Conveyor Attachment

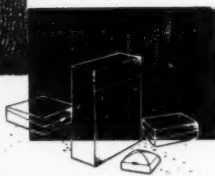


STUYVESANT ENGINEERING CO.

107 Stuyvesant Avenue Lyndhurst, New Jersey
REPRESENTATIVES IN PRINCIPAL CITIES



* Reg. Trade Mark



are you specifying

uni-mark
fabricated
leather

Write
for
swatch
books.

... or competing against it?

looks... feels... wears like top-grain leather—yet costs a fraction of its price! Only Uni-Mark makes Fabricated Leather*—and only Fabricated Leather* contains genuine leather fibers.

UNI-MARK, INC.

450 Fourth Ave., New York
114 South St., Boston
Agents in all principal cities.

For Your Information

(Continued)

supplied by the package or label and economy of package production. Entry blanks may be obtained by writing c/o Packaging Contest, 79 Madison Ave., New York.

First prize in the paper division of the Label Contest held recently by the **Small Brewers Assn.** was awarded to Diamond Spring Brewery, Inc., Lawrence, Mass. for its Holihan Beer labels. The three-color labels were lithographed by **Gamse Lithographing Co.**, Baltimore, Md.

The **Institute of Food Technologists** will hold its decennial conference May 21 through 25, 1950, at the Edgewater Beach Hotel in Chicago. The Chicago section will be hosts for the national meeting, which will have exhibits pertaining to food processing, including packaging.

The **Fourth National Plastics Exposition**, sponsored by The **Society of The Plastics Industry** will be held at Navy Pier, Chicago, from March 28 through 31, 1950.

Members of the fibre drum industry and packaging specialists of the **U. S. Air Force Container Laboratory** at Wright-Patterson Air Force Base, Dayton, Ohio, recently conducted a series of tests on approximately 100 fibre drums of all size groups. The laboratory—one of the newest and most complete in the country—has equipment necessary for testing packaging materials under all extreme climatic conditions and simulated high-altitude conditions. The testing was done under the direct supervision of **W. D. Long**, director of container research and development at the laboratory; **F. K. Duffy**, Carpenter Container Corp.; **A. J. Godshalk**, Fibre Drum Co.; **R. E. Hall** of Alhambra, Calif., and **Glenn Mather**, secretary of the Fibre Drum Mfrs. Assn. Many of the fibre drum manufacturers on their way to their association's mid-year business meeting in Cincinnati stopped in Dayton to attend a luncheon and tour the laboratory as guests of Mr. Long and **Col. John C. McCawley**, chairman of the Air Force Packaging Board.

At the 31st annual meeting of the **American Standards Assn., Inc.**, recently held in New York, **Thomas D. Jolly**, vice president of Aluminum Co. of America, was re-elected president of the association. **Harold S. Osborne**, American Telephone & Telegraph Co., was elected vice president; **W. C. Wagner**, Philadelphia Electric Co., chairman of the Standards Council, and **J. R. Townsend**, Bell Telephone Laboratories, vice chairman of the Standards Council.

Ten conventions and conferences of national and international organizations will be held in Chicago during the two weeks of the **Sixth Educational Graphic Arts Exposition** at International Amphitheatre, Sept. 11 to 23, 1950. The 10 are: The **International Assn. of Printing House Craftsmen, Inc.**, **Printing Industry of America, Inc.**, **International Typographic Composition Assn.**, **Book Mfrs.' Institute**, **Lithographers' National Assn.**, **National Graphic Arts Education Assn.**, **Label Mfrs.' National Assn.**, **Graphic Arts Trade Assn. Executives**, **International Printing Supply Salesmen's Guild** and **National Printing Equipment Assn.**

Users of transparent films are offered specific information on what types of adhesives to use for various films in a handbook recently published by **National Adhesives**,

Announcing a new adhesive for faster, cleaner labeling!



Swift's Evertite
BOTTLE LABEL ADHESIVE

All these and many other types of bottles may be securely labeled with Swift's Evertite. Evertite resists temperature and humidity extremes. It works well on cold, wet, stippled, and even on slightly greasy surfaces!

*Here's great news! Swift & Company announces
EVERTITE—a new and different adhesive for
labeling glass bottles and jars.*

We think your tests will show *Evertite* to be the cleanest-machining, most economical adhesive available. Here's why:

Swift's *Evertite* spreads smoothly and evenly permitting the application of a very thin film. Machine should be adjusted so that the thinnest possible continuous film is applied. It is unusually short fibered and breaks clean without feathering or stringing.

**Strong suction tack—
excellent label pickup**

Try *Evertite* for Ermold, O & J, World, Oslund and Liquid Carbonic machines—Swift's #2602* for New Jersey Pony Labelrite and Pneumatic Machines or hand brushing.

Test Evertite today! Mail this coupon now for a trial drum of this remarkable new Swift adhesive.

Evertite and the more fluid type (#2602) have scored well in test runs according to our reports received from the field.

PHILADELPHIA, PA. • "Saw *Evertite* running in an O&J machine today. The operators were very well pleased with it. It was running very clean, the labels were nice and tight (neck-band and body label), and the mileage was superb. They are going to continue tests and will keep you posted."

LOS ANGELES • "This company has tested #2602 on their Pony Labelrite machines labeling primarily alcohol bottles. Their previous adhesive did not give them good adhesion on the corners due to the contour of the bottle. #2602 is doing a remarkable job for them."

ATLANTA • "Local manufacturer just ran test with *Evertite* on their World Straightaway Labeling Machine. They use a rather tough, springy label on one gallon glass jugs. They ran *Evertite* straight and it performed an excellent labeling job."

Swift & Company

Adhesive Products Department
CHICAGO 9, ILLINOIS

Swift & Company, Adhesive Products Department, Chicago 9, Illinois
Gentlemen: Please send us a 10-gallon trial drum of the following, invoiced at the large drum price of 12¢ per lb. FOB your nearest adhesive plant (13¢ FOB San Francisco, North Portland, Los Angeles).

- ☐ Swift's *Evertite* for Ermold, World, O&J, Oslund and Liquid Carbonic Machines.
☐ Swift's #2602 for New Jersey Pony Labelrite, Pneumatic Machines and hand brushing.

We understand this adhesive may be returned at your expense if we are not completely satisfied with our tests. (This offer expires Feb. 15, 1950)

Firm _____
Address _____
City & State _____
Signed by _____

* More fluid than Evertite

ONE CALL FOR ALL

• BASIC IDEAS • ART WORK • CARDBOARD
• CONSTRUCTION • METAL • PLASTIC • WOOD
• GLASS • LAMINATION • PRINTING

RIVER RAISIN PAPER COMPANY
DISPLAY DIVISION • MONROE, MICHIGAN

RIVER RAISIN
DIMENSIONAL DISPLAYS



* Sanitape-Sealtite

Whichever of these basic types you select, the final package (sample or standard-sale), becomes an outstanding merchandiser which can help bring success to a fine product. We shall be glad to tell you about the endless adaptations of unit packaging.

IVERS-LEE COMPANY, NEWARK, N. J.

* Sanitape-Sealtite is a unique method for packaging pills, tablets, capsules, creams and powders, by which each unit or unit-dose is sealed in its own air-tight compartment—assuring complete protection and maintained efficacy. Packages, machines and methods fully covered by U. S. and Foreign Patents and Patents Pending.

For Your Information

Continued

Division of National Starch Products, Inc., 270 Madison Ave., New York 16. Titled "How to Handle Adhesives for Transparent Films," it gives helpful advice on the various types of adhesive formulations—emulsions, lacquers and hot melts—for bonding the large number of transparent films and coatings now on the market. Included with the handbook is a complete chart listing films by their trade names, giving the names and addresses of the manufacturers of the various films, the film grades, gauges and characteristics, together with adhesives recommended for each type. Copies of the handbook and chart are available free on request to National Adhesives.

The Society of Plastics Engineers will hold its 1950 technical conference in Cleveland, Jan. 11, 12 and 13 at the Hotel Carter. The conference will feature presentation of 20 papers on original research in the plastics industry and discussions on new developments and techniques in manufacturing and uses. **Richard L. Huber**, president of the Cleveland-Akron section, is conference chairman.

In *Modern Publicity 1949*, an art and industry annual of international advertising art, the best work of advertisers, their agencies, the designers, engravers and printers in 27 different countries during this year has been collected and graphically presented by editors **Frank A. Mercer** and **Charles Rosner**. The book contains over 500 illustrations of posters, direct mail, show cards, packages, trademarks, advertisements, etc. These examples of "modern publicity" are grouped into three categories: commercial, travel, and cultural and social, for easy reference by users. It is published by The Studio Ltd., London, England, and in New York by Studio Publications, Inc., 381 Fourth Ave.

Members of the **Label Mfrs. National Assn.** elected **George R. Langlois**, Muirson Label Co., as their association president for the coming year. The election of officers, completed at the annual meeting in Chicago, also placed in office **Edward LeVesconte**, H. S. Crocker Co., Inc., as vice president and **Hugo Dalsheimer**, Lord Baltimore Press, as treasurer. **Charles R. Cosby** continues as executive secretary. Mr. Dalsheimer was also elected as director for a three-year term with **Morris W. Davidson**, Courier-Journal Job Printing Co.; **Frank C. Merker**, Woodward & Tiernan Printing Co., and **Theodore C. Nevins**, Nevins-Church Press.

As part of its educational campaign on the uses of gummed tape, direct mail pieces will be used during 1950 by **The Gummed Industries Assn., Inc.** This promotion was announced at the organization's annual meeting, held recently in White Sulphur Springs, W. Va. **Arno L. Zinke**, Mid-States Gummed Paper Co., was unanimously elected president during the meeting. New vice president is **Henry W. Stark, Jr.**, Rexford Paper Co. **Philip O. Deitsch** was renamed managing director. The following were elected to the board of directors: **Roth F. Herrlinger**, The Gummed Products Co.; **E. B. Luck**, Wortendyke Mfg. Co.; **R. A. Maish**, Dennison Mfg. Co.; **T. H. Mitten-dorf**, Hudson Pulp & Paper Corp.; **F. A. O'Neill**, Paper Mfrs. Co.; **W. L. Shattuck**, The Adhesive Products, Inc., and **Nathan Warshaw**, Atlantic Gummed Paper Corp.

DESIGNED BY GENERAL ELECTRIC AT NO. 1 PLASTICS AVENUE



Original suggestion for plastics packaging, designed by General Electric.

Put your pills in her purse

WITH A G-E PLASTICS PACKAGE

Here's a feminine trinket that's useful as well as decorative. This handsome and handy pillbox was designed in colorful plastics by General Electric to give away with each hundred-tablet bottle. It's a sure-fire sales maker for vitamins or aspirin.

This pillbox is just another example of how General Electric's original plastics packaging can glamorize your product, heighten its eye appeal, increase sales. General Electric has no stock of these boxes. However, this design may be yours. Or whatever your requirements may be, G. E. will take on the job.

For General Electric, one of the world's largest

manufacturers of finished plastics products, offers a complete plastics packaging service... from making the original design to the production of the finished package. Also, G. E. molds all types of plastics materials; thus you get the one that best suits your needs.

No matter what your products are, give them the settings they deserve—plan to use plastics in your merchandising. General Electric designers and engineers are always ready to work on your packaging problems. Write to Section 2-12, Plastics Division, Chemical Department, General Electric Company, 1 Plastics Avenue, Pittsfield, Massachusetts.

YOU CAN PUT YOUR CONFIDENCE IN

GENERAL  ELECTRIC
EVERYTHING IN PLASTICS

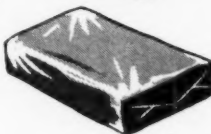
PARAFFLEX WAXES

need no additives

...just apply

Parafflex Waxes are new paraffin wax formulations developed specially for the paper and packaging industries. Greaseproof, odorless, tasteless. Not tacky or brittle. High flexibility, gloss, transparency, moisture vapor resistance. Low cost.

Complete technical service available.

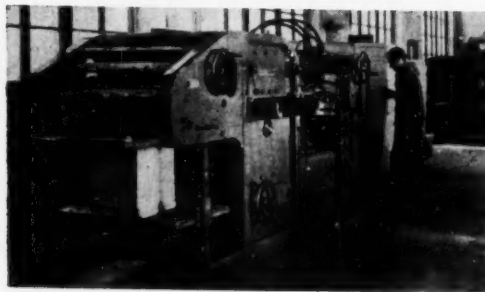


**BOLER PETROLEUM
COMPANY**

121 South Broad St.

Philadelphia 7, Pa.

**BETTER BOXES, MADE STRONGER
IN LESS TIME with the
BOBST AUTOPLATEN!**



The box costs less in dollars and cents because . . .

- * The Bobst Autoplaten reduces downtime by 75%. Practically all make-ready is done OUTSIDE the machine . . . while another job is running.
- * The Bobst Autoplaten employs endless chain drives instead of tapes to insure perfect register . . . thus reducing wastage.
- * The Bobst Autoplaten runs at 4500 BOXES PER HOUR.



Write for the Bobst Brochure.
Full information will be supplied
upon request.

H. H. HEINRICH INC.

200 VARICK ST. NEW YORK 14



U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Shipping Package for Heavy Spools, T. R. Polglase and H. J. Hoebeke (to Anaconda Wire & Cable Co., a corporation of Delaware). U. S. 2,482,869, Sept. 27. A shipping package for heavy spools comprising a pair of rigid mating semi-cylinders each having an inside diameter substantially equal to the diameter of the spools and which assembled together form a cylinder which fits snugly about the spools and having a pair of full, circular, rigid end closures of the size of the semi-cylinders.

Protein Dispersions and Their Use in Printing Inks, A. F. Schmutzler, Teaneck, N. J., and D. F. Othmer, Coudersport, Pa. U. S. 2,482,879, Sept. 27. A printing ink essentially consisting of a dispersion of soybean protein containing from 95% upward of pure protein being peptized by the action of guanidine carbonate, a resin and a pigment.

Method of Making Paper Yarn, E. J. Brockman and T. M. Scruggs (to Bemis Bro. Bag Co., St. Louis, Mo.). U. S. 2,482,895, Sept. 27. The method of making twisted, wet-strength paper yarn, comprising moistening a flat paper strip to soften and swell the fibres thereof, dispersing throughout the moistened strip a partially condensed resin adapted in its condensed form to waterproof the fibres of the strip and spinning same into yarn.

Box, E. L. Arneson (to Morris Paper Mills, Chicago, Ill.). U. S. 2,483,030, Sept. 27. A box which comprises side walls and telescoping end and top walls, one of top walls having an underlying flap folded and secured thereto centrally thereof, which flap is of reduced length compared to top wall, which makes a telescoping top wall providing a top-wall structure.

Bottle Cap, R. Krasberg, Chicago, Ill. U. S. 2,483,055, Sept. 27. A re-usable bottle cap for headed-neck bottles comprising a cupped closure member having a plurality of depending resilient members to engage neck of bottle below head thereof.

Bottle-Holding Drum Structure, A. L. Nelson (to Hayes Mfg. Corp., Grand Rapids, Mich.). U. S. 2,483,059, Sept. 27. A bottle-holding revolvable drum formed of a series of like sections secured to each other, each section being developed from a flat sheet to include a radially extending flat partition portion having return bend therein projecting from opposite sides thereof to form axially extending ribs and segmental arcuate flanges.

Carton-Forming Device, D. Ray (to Arden Farms Co., Los Angeles, Calif.). U. S. 2,483,063, Sept. 27. A machine for folding and depositing an imperforate container blank within a forming mold of polygonal shape, comprising a forming table having an opening therein, a plurality of forming heads arranged around opening in spaced relation to each other in a common plane to agree with alternate side-wall sections of container.

Alignment Controlling Packaging Machine, L. L. Salfisberg (to Ivers-Lee Co., Newark, N. J.). U. S. 2,483,155, Sept. 27. A packaging machine including the combination, with means for periodically feeding portions of a commodity, of a pair of rotatable rollers to receive between them opposed layers of packaging material, at least one of which has indicia-bearing zones and between which each of said commodity portions is deposited normally in register with one of indicia-bearing zones, means on rollers for adjusting layers of packaging material to vary the relationship of indicia-bearing zones to the respective commodity portions.

Sealable Carton with Multi-Ply Bottom, J. R. Belsinger (to Belsinger, Inc., a corporation of Georgia). U. S. 2,483,174, Sept. 27. A carton of sheet material comprising double bottom layers, one of bottom layers having front and back walls connected thereto, the other bottom wall having end walls connected thereto, each end wall being of an integral piece having a triple thickness of material formed by two successive outward folds essentially parallel to the plane of the bottom, lower fold being spaced from bottom to provide a hand grip.

Machine For Counting and Bottling Pellets and the Like,



Variety

ADDS SPARKLE
.... PERSONALITY PLUS



Let's take Cheese as a good example
of merchandising . . . TODAY!

Smart Packaging is exemplified in these distinctive designs for cheese . . . a leader in the food industry . . . packages with compelling personality, as individual as the variety of cheese they contain.

CLEVELAND CONTAINERS, OF COURSE!

These are typical of only one food classification where we have helped in accomplishing this result. We invite you to send us a sample of some product which you would like to see move faster . . . where new ideas on packaging may be the answer.

Cleveland Containers offer infinite diversity . . . help solve real packaging problems.

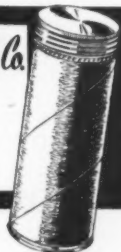
Ask for a copy of our
new folder, identifying
and illustrating package
types and sizes.

The CLEVELAND CONTAINER Co.

6201 BARBERTON AVE. CLEVELAND 2, OHIO

- All-Fibre Cans • Combination Metal and Paper Cans
- Spirally Wound Tubes and Cores for all Purposes
- Plastic and Combination Paper and Plastic Items

PRODUCTION PLANTS also at: Plymouth, Mass.; Appleton, W.I.; Chicago, Ill.; Detroit, Mich.; Longwood, N.Y.
PLASTICS DIVISION at: Plymouth, Mass. • BRITISH DIVISION at: Cleveland, Ohio
SALES OFFICES: Room 5632, Grand Central Terminal Building, New York 17, N.Y.; also 947 Main St., Hartford, Conn.
CANADIAN PLANT: The Cleveland Container Canada, Ltd., Prescott, Ontario. Sales Offices in Toronto and Montreal.





Controlled

PACKAGE FILL MILLIGRAMS

GRAMS OUNCES

With this Model A PAK KING filler you meter the above volumes accurately and at high speed. Spices, coffees, teas, grated cheese, cocoas, drugs, powders, insecticides and chemicals. In semi or full automatic dust free designs up to 120 per minute or more. Loose, settling or ram pressure fill. Tandem fillers for high speed or extra settling features as required for powdered sugar cartons.

Ask for catalog No. 48 or Bulletin No. 481 and 482.

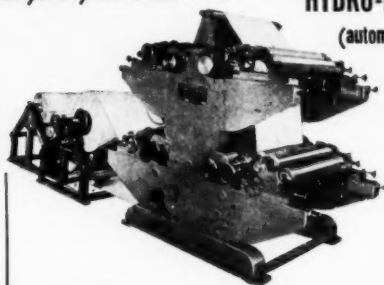


WEIGH RIGHT AUTOMATIC SCALE COMPANY
JOLIET • ILLINOIS • U.S.A.

Don't be satisfied with
anything less than... a

"WOLVERINE HYDRO-PRINTER" (automatic hydraulic

Aniline
Printing
Press)



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U.S. Patents Digest (Continued)

S. Joseph, (to Jerome Rubens, Los Angeles, Calif. U. S. 2,483,207, Sept. 27. In a machine for counting pellets and feeding them to a receptacle: a hopper, a movable guide member under said hopper with guideways on underside for tops of receptacles and having feed holes of different sizes therethrough at the end of guideways for different sizes of receptacles.

Container, R. Vogel, Bridgeport, Conn. U. S. 2,483,304, Sept. 27. A container comprising a receptacle part having parallel front and rear walls and parallel side walls normally at right angles to front and rear walls, a cover part with parallel front and rear walls and parallel side walls at right angles to front and rear walls, there being lateral clearance between the rear wall of receptacle part and rear wall of cover part to permit lateral shifting of cover part relatively to receptacle part in closed position and equipped with spring hinge.

Spout-Sealing Machine, P. E. Fischer and E. Ardell (to Hartford-Empire Co., Hartford, Conn.). U. S. 2,483,458, Oct. 4. A device with a conveyor for conveying a succession of containers, a rotatable drum having a cylindrical surface disposed adjacent conveyor for engagement with successive containers carried thereby, means for feeding a continuous web of sheet material onto the cylindrical surface of drum at a uniform linear velocity.

Container, A. H. Johnson, Oak Park, Ill., (one-half to Frederick T. Johnson, Milwaukee, Wis.). U. S. 2,483,464, Oct. 4. In a shipping, storing and dispensing container of triangular shape in cross-section, including rear wall, forwardly extending converging side walls on the rear wall, forwardly extending flanges on front forward edges of side walls and means securing flanges together and having wing extensions on the upper and lower edges of rear and side walls defining top and bottom, abutting flanges defining reinforcing ribs.

Shipping Carton, J. C. Stetson (to John C. Stunkel, Chicago, Ill.). U. S. 2,483,481, Oct. 4. In combination with a rectangular carton of conventional construction with bottom, a rectangular perimeter wall, a plurality of closure panels foldably arranged at the top wall and two base sill members arranged and supported on opposite sides of bottom against opposite panels of wall and a post arranged vertically at each corner of rectangle.

Multiple-Compartment Box, W. W. Holes, St. Cloud, Minn. U. S. 2,483,583, Oct. 4. A multiple-compartment box having a transversely corrugated filler sheet and an interlocking cooperating main sheet, main sheet comprising a fenestrated top central section, end flaps and side flaps, top section being cut to form compartment windows and longitudinal wings, wings being folded down to form sides.

Container and Method of Making the Same, A. A. Abramson (to Central States Paper & Bag Co., St. Louis, Mo.). U. S. 2,483,604, Oct. 4. Method of constructing a bag-like container from a section of flexible material which comprises applying a stripe of pressure-sensitive adhesive longitudinally along each side margin of section, covering one of stripes of adhesive with a removable strip of material and folding over on itself for partially redoubling section upon itself.

Pouring Cap, T. M. Punchak, Cleveland, Ohio. U. S. 2,483,784, Oct. 4. A pouring cap for milk bottles having an internal closure supporting shoulder, said cap comprising a body with a closed upper end and a recess extending upwardly from its lower end, recess having a lower portion of a diameter to fit tightly on mouth of milk bottle, closure having a valve-receiving portion and a transverse tube communicating with same constituting an air inlet and other end a fluid outlet.

Closure for Jars, G. H. Limpert, Vineland, N. J. U. S. 2,483,586, Oct. 4. A closure for fruit jars comprising a circular band portion adapted for screw-engagement with the top of a standard jar, screw band having an inturned flange around its upper end; a top for the cap adapted to rest in flat engagement with upper side of inturned band, cap being divided into two hinged sections.

Machine for Application of Sleeves to Valve Bags, E. W. Vredenburg (to St. Regis Paper Co., New York, N. Y.). U. S. 2,483,860, Oct. 4. In an apparatus for applying supplemental sheets to form sleeves in valve bags, a rotatable table and a plurality of sleeving devices disposed around the periphery of table, each sleeving device comprising a support for holding supplemental sheet in position to be engaged by the spread valve corner of the bag.

Printing Scale, L. S. Williams (to Toledo Scale Co., Toledo,



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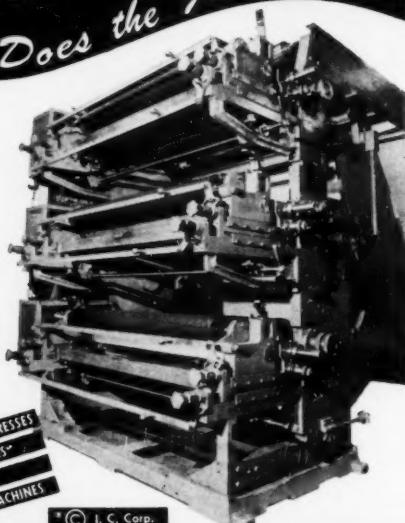
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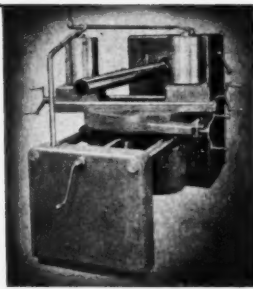


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U.S. Patents Digest

(Continued)

Ohio). U. S. 2,483,989, Oct. 4. In a weighing scale having automatic load-counterbalancing mechanism, manipulative increased capacity load-counterbalancing mechanism and a printing-indicia-bearing member responsive to operation of automatic load mechanism.

Collapsible Carton, D. Golden, New York, N. Y. U. S. 2,484,085, Oct. 11. A collapsible egg carton having sloped wall portions joined to the front wall and rear wall, with foldable side walls shaped and positioned to be fitted between the sloped wall portions of the bottom section when carton is in collapsed position and to abut lateral edges of bottom wall when carton is expanded.

Feed and Discharge Mechanism for Container Handling Machines, F. W. Krueger, (to Food Machinery & Chemical Corp., a corporation of Delaware). U. S. 2,484,101, Oct. 11. In a container feed and discharge mechanism, the combination of: a rotor adapted to rotate about a vertical axis, a series of individual elevators on rotor, each of which adapted to receive and elevate a container to perform an operation thereon and lower container while latter is supported on elevator.

Machine for Separating and Feeding Contained Batches of Articles, G. Turall and C. H. Skinner (to R. Hoe & Co., Inc., New York, N. Y.). U. S. 2,484,196, Oct. 11. In a mechanism for separating a continuous stream of products into a stream of separated, counted batches of products, a plurality of traveling supports comprising endless driven members, switch means to divert a predetermined number of successive products in the continuous stream first to driven members of another support, secondary endless members driven at higher speed to accelerate the products on first driven members and then those on first driven members of another support.

Container and Closure, F. W. Krueger (to Food Machinery & Chemical Corp., a corporation of Delaware). U. S. 2,484,039, Oct. 11. A container having a non-yielding wall provided with a top face and a plurality of spaced non-yielding projections on its periphery below face, each provided with an inwardly declined lower surface and a cap comprising a top provided with a sealing ring for sealing engagement with top face of container.

Closure for Containers, J. Coyle (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,484,270, Oct. 11. Closure for a container body comprising a closure cap including a top portion and a depending skirt slit so that ends are spaced to form an integral hinge between upper and lower portions of skirt.

Metal Container, J. Coyle (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,484,271, Oct. 11. A metal container having a rigid sealing lip for a crown closure cap comprising a body portion terminating in a neck to receive a crown cap.

Vacuum Jar, B. L. Noeth, South Bend, Ind. U. S. 2,484,309, Oct. 11. A vacuum jar comprising a body unit including a cup-shaped sheath, a cup-shaped, double-walled evacuated liner having a wide mouth opening and means for anchoring liner in sheath in spaced relation thereto.

Apparatus for Folding Paper and Like Material, J. W. Thorp, S. W. Bussell and S. J. Herbert (to H. Reeve Angel & Co., Ltd., London, England). U. S. 2,484,390, Oct. 11. In a machine for folding paper, having upper and lower jaws providing an opening therebetween for receiving a piece of paper to be folded, a plurality of movable folding blades mounted in each of said jaws and movable from jaws into opening to interleaf said blades with the blades of one jaw alternating with the blades of the other jaw, and having an ejector for the folded paper being mounted on a shaft continuously rotatable in one direction.

Labeling Machine, G. W. von Hofe (to New Jersey Machine Corp., Hoboken, N. J.). In a labeling machine or the like, the combination of a fixed support, supporting means for carrying a stack of elements to be labeled slidably mounted on fixed support for movement in a vertical direction and means operative to apply labels successively to the top elements in the stack.

Light-Weight Container, L. E. Cheyney and R. J. McCutcheon (to Wingfoot Corp., Akron, Ohio). U. S. 2,484,608, Oct. 11. A container consisting entirely of insulation and rubber hydrochloride film, the container being cylindrical with a continuous layer of insulation in the side and bottom walls and having a plug-type insulated closure.

Double-Seal Milk Can, J. A. Hopwood, Westfield, N. J. U. S. 2,484,624, Oct. 11. A milk can comprising a neck with a

Easter Parade.

Our EASTER PARADE Sample Book preludes a new era of EASTER design achievement . . . Gayer, Modern, more Colorful than this season's packaging ever could hope to be.

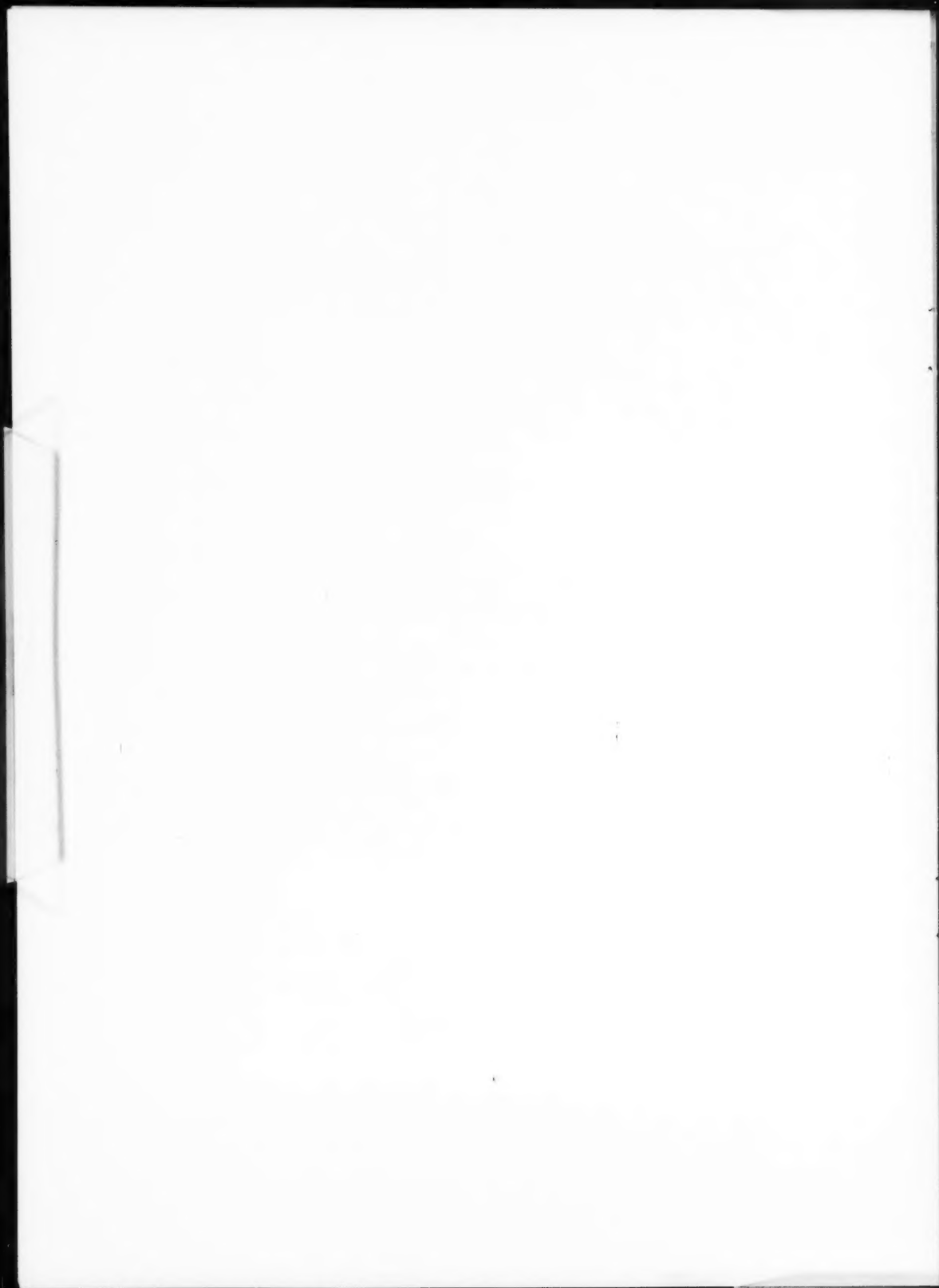
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U.S. Patents Digest

(Continued)

superimposed bowl having an outer edge which is thickened and reinforced, in combination with a cover having a center section with a rim adapted to fit into the neck of the can and provided peripherally with a radially extending umbrella and a skirt rabbeted at its upper end to receive flange which is welded in place therein.

Tape Dispensing Device, D. C. Robson and C. N. Stover (to Western Electric Co., Inc., New York, N. Y.). U. S. 2,484,648, Oct. 11. An adhesive tape dispensing device, a rotary tape dispensing wheel mounted for peripheral engagement with the adhesive side of a continuous length of adhesive tape as it is withdrawn from a supply thereof, means for rotating the wheel to withdraw predetermined lengths of tape from the supply and equipped with severing means.

Box Head Labeler, M. W. Flynn, San Francisco, Calif. U. S. 2,484,701, Oct. 11. In a machine of this type, means for holding a stack of labels, means for removing one label at a time from the stack, label-positioning and holding means cooperating with the label, removing means for holding the label in a predetermined position.

Package, L. L. Salfisberg (to Ivers-Lee Co., Newark, N. J.). U. S. 2,484,749, Oct. 11. A package comprising a wall of superimposed sheets of opaque material sealed for substantially one-half their area to provide a commodity-receiving compartment centrally of sealed area and to provide a rigid unitary area, remaining area of sheets being folded outwardly to form hinged covers on opposite sides of sealed area.

Cut-Off Mechanism, J. F. Peters (to American Can Co., New York, N. Y.). U. S. 2,484,854, Oct. 18. A cut-off mechanism for severing a moving tube into short lengths suitable for can bodies.

Shipping Container, R. H. Van Sam (to California Container Corp., Oakland, Calif.). U. S. 2,484,975, Oct. 18. An open-topped paperboard container comprising a bottom, two pairs of opposed side walls, a pair of narrow top flaps each extending the length of and hinged on one side wall of a first pair of opposed side walls and being swingable to close the top of container along two edges thereof.

Tape-Serving Machine, T. H. Krueger (to Better Packages, Inc., a corporation of New York). U. S. 2,485,002, Oct. 18. An apparatus for dispensing tacky tape, means for holding a supply of the tape, a rotatable reel for withdrawing tape from the supply and supporting tape pending removal therefrom.

Carton-Handling Apparatus, W. J. Cupo (to Waldorf Paper Products Co., St. Paul, Minn.). U. S. 2,485,040, Oct. 18. Carton-handling apparatus comprising, in combination, means to receive filled cartons having their closure flaps folded in overlapping relation, with outer flap structure being more pervious to air than inner flap, means to move cartons progressively forward, suction means to apply suction to outer flap which draws and holds flap to permit adhesive bonding thereof and discharge station to discharge the completed package.

Pressure-Sensitive Adhesives, F. K. Watson and P. Arthur, Jr. (to E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.). U. S. 2,485,248, Oct. 18. A pressure-sensitive adhesive sheet comprising a flexible backing having one side thereof coated with an ethylene vinyl acetate copolymer in which the mole ratio of ethylene to vinyl acetate is within the range of 2:1 to 4:1, said copolymer having admixed therewith about 0.05 to 0.25 part by weight of octadecandiol diacetate as a tackifier.

Method and Apparatus for Closing and Sealing Cartons, P. A. Graf (to Container Corp. of America, Chicago, Ill.). U. S. 2,485,255, Oct. 18. Improved method of closing and sealing one end of a tubular carton having four side walls and a closure flap integrally joined to each of side walls along a score line and apparatus for closing and sealing this one end.

Label Dispenser, C. A. Flood (to Deminon Mfg. Co., Framingham, Mass.). U. S. 2,484,880, Oct. 18. A device for dispensing labels from a backing upon which the labels are mounted with adhesive, adapted to peel away from the backing.

Process for Capping Bottles, W. O. Farrel (to Rainfair, Inc., Racine, Wis.). U. S. 2,485,372, Oct. 18. The process of capping bottles which consists in depositing a quantity of plastic material in liquid form upon the surface of a body of water, allowing material to spread in a film upon the water surface, then place end of bottle in contact with the film.

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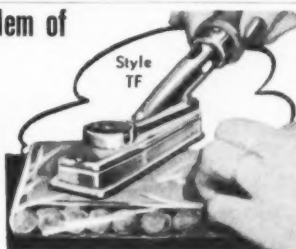
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For Cellophane, Lumarith and similar materials, use the Wells Thermosealer AS IS.
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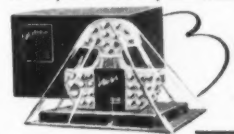
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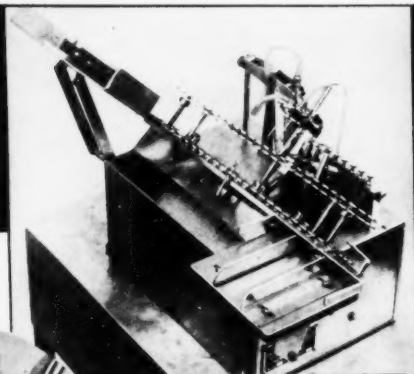
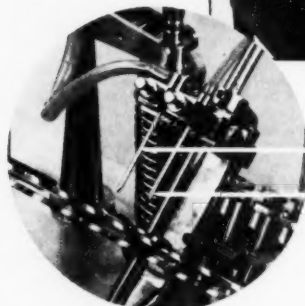
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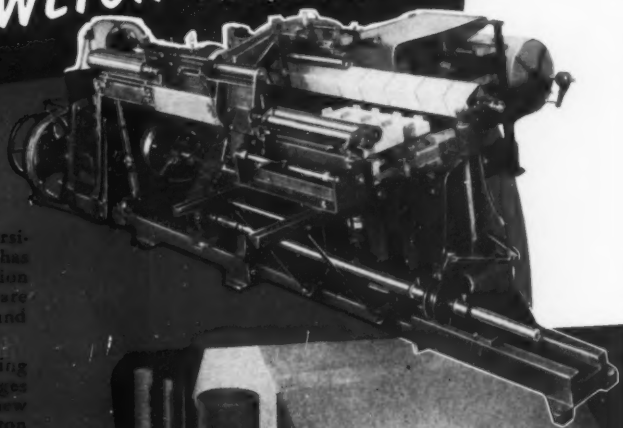
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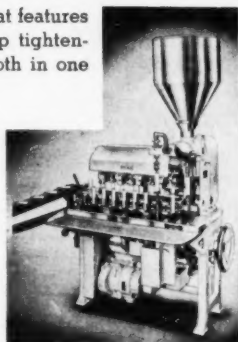
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Effective use of displays

(Continued from page 79) use. This method has been used successfully for years by the automobile manufacturers and more recently has been adopted by several soft drink manufacturers.

Counter display cartons

The counter display carton for all manner of packaged products has become an almost universally used type of point-of-sale display. It is effective in that its chances for use are very great in many types of outlets and it also serves double duty as a necessary shipper. Here there is seldom any question about the effective use of display dollars.

Contests and prizes

Quite a number of firms have employed contests to induce wider use of manufacturer-supplied display material with substantial prizes such as radios, refrigerators, television sets, other merchandise or cash as prizes. Several have conducted photograph contests in which the awards are judged on the basis of how dealers made use of the display material furnished them as shown in photographs of the displays which they submit to the company conducting the contest. Nestle's Chocolate ran such a contest last year, which proved so successful the activity was repeated this year.

Display services

Many display service organizations are set up throughout the country to aid retailers and manufacturers in the handling of point-of-sale advertising. Several of these serve the tobacco industry, while others specialize in the drug, liquor and other fields.

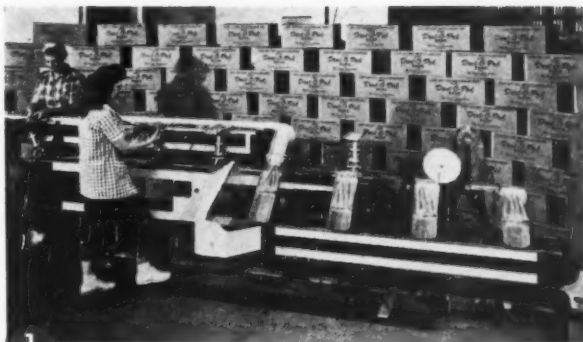
Such organizations are very useful in getting manufacturer-supplied material in the windows or on the counters of independent stores and can guarantee installations of specified duration.

An interesting example is the Drug and Liquor Merchandising Services which serve the Metropolitan New York area and certain sections of New England. Started about 14 years ago in the drug field exclusively, the same organization branched out during the last two years with a liquor promotion service as well. The drug service came into being following passage of the fair trade law, giving all druggists an opportunity to make profits on fair-traded branded merchandise. It is supported cooperatively by the druggist and the manufacturer, the druggist paying the larger share of the costs. Druggist users must turn over under contract their best window for the fee they pay per window, a four-week display along with a limited number of other nationally advertised fair-traded items. All the manufacturer does is supply display cards and dummy packages. By subscribing to such a service, he is assured of a display of his featured item for four weeks' duration in some 1,500 drug stores. In addition, he is given a counter display—either a special counter merchandiser

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Presented for the first time at the San Francisco Packaging Exposition, the Dent-O-Matic loading machine is specially designed to complement and complete the economical operation of "Dent-O-Pak" bags. It weighs, fills and automatically stitches, with only two girl operators, 28 bags per minute. It stands up under hard, continuous usage and pays for itself, through increased output, in a short time.



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NATIONALLY KNOWN
GROWER PACKERS**



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CHICAGO 32

WICHITA, KAS.

supplied through the service or one of his own counter display pieces. He is given additional advertising support through circulars, shopping bags and other printed material. The service's own display men install the displays. Checkers watch the stores periodically to see that the displays are carried out as planned. Among the users of the service are American Safety Razor Corp., Bristol-Myers, Gillette Safety Razor Corp., Johnson & Johnson, Lamont Corliss Co., Menmen Co., Pepsodent, Vicks, Wildroot, J. B. Williams and others.

A similar service is operated by the same company for liquor dealers and a group of distillers. Here multiple-brand displays are set up with dummy bottles of the liquor. The aim is an 800-store coverage. In New York State all display pieces are supplied through the service, as no manufacturer-supplied branded material may be used for promotion in New York State package liquor stores windows.

Summary

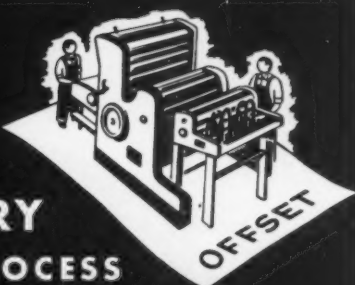
Although no technique can be said to fit all cases and no method meets the requirements of every sales promotion department, much progress toward effective use of displays is being made through serious application of statistical principles. Due to product differences, manufacturers may continue to argue the relative merits of shelf strips vs. floor stands, counter cards vs. wall posters, etc., but there is one point on which all will agree—and that is the value of an "altruistic" approach. To plan successful point of sale, you must put your feet in the retailers' shoes—not insist on the promotion of your brand to the exclusion of others, but join up with the cavalcade of related items that go into the shopping bag. Assorted brands of similar products in mass display are known to increase the sale of all to a greater extent than when one brand is shown alone. Such display is one of the biggest factors today in winning the consumer's dollar. In such mass displays the package itself assumes a more and more important role.

Machinery prospects reviewed

That the food industry will continue to demand more and more packaging machinery capable of operating at faster and faster speeds was a conclusion reached by three of the speakers at the Package Machinery Mfrs. Institute's annual meeting recently held in Chicago. The outlook for packaging-equipment demands in the coming months and years was the basic theme at all of the sessions of the three-day meeting.

In discussing the outlook as a representative of a packaging materials supplier at one of the panel discussions, Walter N. Farrelly of E. I. du Pont de Nemours & Co., Inc., pointed out that the current emphasis on pre-packaging fresh meats and produce will, in the not too distant future, require an estimated 30,000 packaging machines. In explaining the importance of packaging in the food industry, he said that a total of

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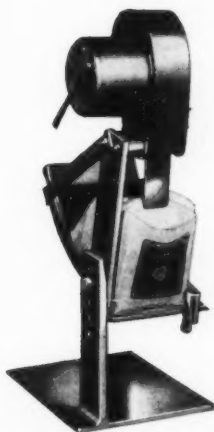
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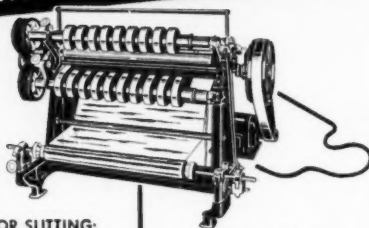
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15,000 units of packaging equipment would be required to turn out 60 billion food packages annually, assuming that the average product requires not one machine, but three, to complete the necessary filling, wrapping and related operations.

Another speaker on this panel, George N. Woodruff of General Foods Corp., said that there is an increasing need for carton-filling and sealing machines with operating speeds of around 200 units per minute to handle such foods as cereals, cake mixes, flours, pudding mixes, etc. This same type of equipment is also needed by soap manufacturers, he added. Packagers are interested in high-speed equipment because of the direct savings in labor they make possible, he said.

This point was elaborated upon by Roger L. Putnam, Packaging Machinery Co., representing the equipment manufacturer. Mr. Putnam suggested that equipment suppliers could help packagers reduce their costs if they would try to standardize equipment in such matters as heights and dimensions so that various machines could be integrated easily into a packaging line. He also said that continued development of new packaging materials creates new problems and opportunities for equipment suppliers, mentioning as an example the work that is being done on machines to handle polyethylene film, which he felt might eventually capture as high as 10% of the market for transparent wrapping materials.

At another session, Herbert H. Weber, H. C. Weber & Co.; Bryant W. Langston, Samuel M. Langston Co.; Dr. Horace C. Baker, Hudson-Sharp Machine Co.; John M. Chalfant, Package Machinery Co., and William Steinwedell, former consultant for E.C.A., participated in a lively panel discussion on "Opportunities for Foreign Business Today and Future Outlook."

The subject of meat pre-packaging came up again in one session when Jack Manion of Milprint, Inc., whose talk on this topic was one of the highlights at the recent meeting of the American Meat Institute, discussed it from the packaging equipment viewpoint.

At the final session Institute members discussed general business conditions at the present time, with reports on financial and operating cost ratios as of June 30, 1949; backlogs, orders and sales as compared with a year ago. Wage trends and pension plans in the industry were topics during this forum period.

Wallace E. Coughlin of Pneumatic Scale Corp., Ltd., was elected president at the business meeting of the Institute. Boyd H. Redner of Battle Creek Bread Wrapping Machine Co. and Wilhelm B. Bronander of Scandia Mfg. Co. were elected vice presidents. Mr. Redner was also selected one of four new directors, the others being Palmer J. Lathrop of Cameron Machine Co., Harry A. Miller of Burt Machine Co. and G. Radcliffe Stevens of Elgin Mfg. Co.

Nearly 100 executives of packaging machinery companies attended the three-day meeting which was reported to be the most successful the Institute has ever had. John P. Corley, Miller Wrapping & Sealing Machine Co., was chairman of the program committee.

•MANUFACTURERS' LITERATURE•

To obtain any of the booklets or catalogs listed below, simply circle the corresponding number on the post card, fill in the information requested, and mail.

CUTTER AND CREASER. Construction, pressure control, control appliances, ease of handling and technical specifications of the Bobet Autoplaten automatic cutter and creaser are given in this folder. H. H. Heinrich, Inc. (12-1)

PACKAGING MACHINE. The fully automatic Model A-1 Pak King machine used for packaging spices, foods, coffees, concentrates, teas, grated cheese, chemicals, soaps, etc. in cans, canisters, bottles, jars, or cartons, is illustrated and described. Specifications are given. Weigh Right Automatic Scale Co. (12-2)

COLOR FILM. Small booklet containing samples of nine standard colors of Pliofilm, rubber hydrochloride, which is easily adaptable to automatic packaging machinery. The Goodyear Tire & Rubber Co. (12-3)

BOX AND LABEL PRINTING FOR THE TEXTILE INDUSTRY. This folder describes with illustrations and specifications the Models KD, 105, and 105-10 machines as used in the packaging of textiles. It also describes the use of the three machines for box and label printing in the textile industry. 4 pages. Markem Machine Co. (12-4)

STORING AND USING CELLOPHANE. Suggestions for proper care in the storage and use of Sylvania Cellophane, which is moisture sensitive and therefore affected by climatic changes. 4 pages. Sylvania Division, American Viscose Corp. (12-5)

VACUUM FORMING SHEET KODAPAK. A description of the vacuum forming of Kodapak including the equipment needed and the system to be followed. Photographs are included. 4 pages. Eastman Kodak Co. (12-6)

SEALTITE, PAPER BAG FILLING AND SEALING. Illustrations and description of a line of bag closing machines designed for automatically feeding, opening, filling, and sealing consumer sizes of paper bags within a range of 1/8 to 10 pounds. Consolidated Packaging Machinery Corp. (12-7)

NON-SKID CONVEYOR BELT. The Grip-top conveyor belt, designed for conveying materials at angles of incline too high for conventional belts, is presented. The case studies show the belt being used to handle coal from trucks to basement, boxes of freight, ice, sacks of sugar, and luggage from transport airplanes. The B. F. Goodrich Chemical Co. (12-8)

OPTICLEAR VIALS. Brochure illustrating uses of Opticlear vials, which are glass vials with polyethylene stoppers. Specifications, including packing and capacities of vials, listed in chart form. 4 pages. Kimble Glass, Owens-Illinois Glass Co. (12-9)

ADHESIVE FOR POLYSTYRENE. Technical bulletin describing uses and methods of application of Koppers adhesive for poly-

styrene, also storage, handling and shipping information. 2 pages. Koppers Co. (12-10)

LIQUID FILLER. The Elgin Twenty-Valve Liquid Filler, used for filling all sizes of tin and glass containers with syrup, molasses, oils, or any other liquid products, is illustrated and described. Specifications are included. 4 pages. Elgin Manufacturing Co. (12-11)

VISITAINERS. Illustrations and the features of Visitainers, which are transparent boxes, are given in this 4-page brochure. Old Dominion Box Co., Inc. (12-12)

GENERAL PURPOSE CARTON FORMER. Literature describing the Palmer general purpose carton former, which will form and seal up to 135 cartons per minute. Blueprints of typical cartons made on this machine are given. Specifications and prices are also included. 8 pages. Package Machinery Co. (12-13)

FROZEN FOOD BAGS. Bulletin giving information on the Zero-Tainer frozen food bags with Shellene liners produced by Shellmar. Illustrations, prices, and specifications are included. Shellmar Products Corp. (12-14)

WRAPPING CONFECTIONERY PRODUCTS. Descriptive sheet presenting the Wrap-O-Matic Model RA for wrapping confectionery products. Mechanical and operational data, illustrated sizes and shapes of products wrapped, and list of present users are included. Lynch Corp. (12-15)

CORRUGATED SHIPPING CONTAINERS. Fully illustrated, 20 page booklet giving information on the production of paper containers from wood pulp. Also included is a history of the development of the Union Bag and Paper Corp. (12-16)

PACKAGING MATERIALS. Brochure illustrating and describing in 16 pages, bags,

canvas products, thread and twine, and other products and special services made available through the Bemis Brothers Bag Co. (12-17)

BOTTLE LABELING. Methods of applying labels to bottles both by hand and machine are given. Also included are label characteristics affecting adhesive selection, and a listing of the most popular Paisley bottle labeling adhesives. Paisley Products Inc. (12-18)

TABLET COUNTER. Illustrated bulletin, giving specifications, production schedule, description of the PerfeKtum Tab-Count for rapid, correct counting of tablets, capsules, pellets, etc., directly into containers. PerfeKtum Products Co. (12-19)

HEAT SEALER. Complete details on use of hand heat sealer, which welds cellophane and other plastic films air-tight, liquid-tight, and moisture-tight, for the home, retail store, locker plant and wholesale establishment. The Dobeckmun Co. (12-20)

FINISHED-EDGE CARTON SET-UP MACHINE. The Finished-Edge carton set-up machine, Model A that sets up double wall trays or cartons automatically from die-cut blanks is illustrated and described in this bulletin. Features and specifications are included. General Mills, Inc. (12-21)

PACKAGES OF ALCOA ALUMINUM. An outline of the fine qualities of Alcoa Aluminum that make it ideal for packaging most items. Illustrations and descriptions are given showing this material used as aluminum foil, collapsible tubes, closures, and shipping containers. 4 pages. Aluminum Company of America. (12-22)

CORRUGATED BOXES. Library of 11 booklets giving information on how to engineer, seal, stack and load, test, and specify corrugated boxes. Also, information on how to prepak in, ship in, use color on, and merchandise with corrugated boxes. Hinde & Dauch Paper Co. (12-23)

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•MANUFACTURERS' LITERATURE.

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HEAVY DUTY WRAPPING MACHINE. The Miller Model MPS wrapping machine, which wraps and seals with heat or glue, is illustrated and described in this bulletin. Features and specifications are included. Amasco Packaging Machinery, Inc. (12-24)

GUMMING EQUIPMENT. Illustrations, features, specifications, and other information is given on table gummers, heavy duty gummers, mounters, combiners, and automatic gummers as produced by New Jersey Machine Corp. (12-25)

SCOTCH TAPES FOR PACKAGING. Bulletin illustrating and describing the use of Scotch pressure-sensitive tapes in every type of industry. Minnesota Mining & Mfg. Co. (12-26)

PLASTIC SILVERWARE CHESTS. A reprint from the December, 1948 issue of MODERN PACKAGING, this illustrated leaflet brings out the features of plastic silverware chests as produced by F. J. Kirk Molding Co. (12-27)

THERMOREADER FOR BEADING SHEET PLASTICS. The Taber Thermo-reader, designed exclusively for beading straight edges of thermoplastic sheet on a high-speed, repetitively uniform production basis, is illustrated and described. Typical applications of the beaded edge and specifications of the machine are given. Price list is included. 7 pages. Taber Instrument Corp. (12-28)

PLASTIC WARES. Illustrations, descriptions, and prices are given in this colorful folder displaying plastic wares such as cups, scoops, spoons, tumblers, etc. as produced by Mack Molding Co. (12-29)

CRIMP HEAT-SEALING MACHINES. The Pacer Model, a fast, heavy-duty heat sealer, is illustrated and described with specifications, features, and operational information. Attachments for various types of openings on packages are also described. Information on various other heat-sealing machines is also included. Heat Seal-It Co. (12-30)

RE-USABLE TUMBLERS CAPPED WITH ALSECO FOIL CAPS. Information on using re-usable tumblers capped with Alseco foil caps for increasing sales. Also described is the hand operated machine for applying these caps. Aluminum Seal Co., Inc. (12-31)

FOIL CARTONS. Bulletin giving a formula that helps to determine whether or not it would be practical and profitable to package various items in foil cartons. United Board & Carton Corp. (12-32)

BAG MACHINE. The features and complete specifications are given of the Manhasset Paper Converter Model BM-24, which is a high speed bag machine having a range of from 1 1/4" to 12" in bag widths and from 6" to almost 20" in bag lengths. Optional equipment with which this machine may be used is also described. Manhasset Machine Co. (12-33)

TRANSPARENT PLASTIC CONTAINERS. Catalog containing illustrations, prices, dimensions, and other important information on the selection of transparent plastic containers. Many novel ideas are presented in these 24-pages. Weinman Brothers, Inc. (12-34)

CARTONING. Report on the cost of cartoning by hand compared to cartoning by machine. Nine group studies are classified by types of operations, permitting direct comparisons with similar operations. R. A. Jones & Co., Inc. (12-35)

NET WEIGHER. Bulletin giving illustrations and the features of the Elec-Tri-Pak net weigher. Also given is a 10-day free trial offer for the use of this machine by Triangle Package Machinery Co. (12-36)

CARTON FOLDING AND CLOSING MACHINE. The Peters D & W type Senior carton folding and closing machine that requires no operator, is illustrated and described in this 4-page brochure. Specifications are included. Peters Machinery Co. (12-37)

STOCK PLASTIC BOXES. Catalog sheet giving size, weight, and other important

information on these stock plastic boxes with various arrangements of compartments within them. Vieshek Tool Co. (12-38)

WEIGHING MACHINES. Features, uses, specifications, operational data, and other important information is given on weighing machines for batching, packaging, bagging, feeding and compounding as produced by The Exact Weight Scale Co. (12-39)

CAPPING. Information on screw caps and the capping chuck is given. Also, the Two Head and Four Head Rotary Cappers are illustrated and described with complete specifications. 8 pages. Pneumatic Scale Corp., Ltd. (12-40)

WEIGHING MACHINES. The types VEN and VEN-4 weighing machines used for products in the form of granules or powder in small portions are illustrated and described with complete specifications on each. Arenco. (12-41)

V-BELT DRIVES. Handy guide for figuring Texrope V-belt drives. Has data on complete line for every application. Also covers Magio-Grip, constant and variable speed sheaves, speed changes. Allis-Chalmers Mfg. Co. (12-42)

CELLOPHANE. Comically illustrated booklet giving 12 ways by which Du Pont Cellophane can be used to better advantage such as in the selection for specific uses, in storage, and for containers. E. I. du Pont de Nemours & Co., Inc. (12-43)

LAGGING ADHESIVE. The outstanding advantages of using lagging adhesive, plasticized synthetic resin emulsion, and operational data are given. Results of laboratory tests are also included. The Arabol Mfg. Co. (12-44)

SLITTING EQUIPMENT. The Kidder Junior and Senior Superspeed shear-out slitters are illustrated and described in this bulletin with specifications on each. Super-Speed slitter diagram for both models is included. Kidder Press Co., Inc. (12-45)

COLOR CHART. Color chart for lacquers, enamels, show card colors, paints, crayons, oil and varnish stains, molding compounds, rubber, and latex. H. Kohnstamm & Co., Inc. (12-46)

GEAR AND CYLINDERS. Selector chart that aids in the selection of the correct gear and cylinder for every rubber plate printing requirement. A formula for determining bar cylinder diameter is also given. Monotype Corp. (12-47)

NET WEIGHING AUTOMATIC WEIGHERS. The Models "A" and "C" Hy-Tra-Leon, automatic machines for net-weighing and filling of free-flowing or semi-free-flowing products with high accuracy in speed, are illustrated and described with complete specifications and diagrams. Wright Machinery Co. (12-48)

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MODERN PACKAGING

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New cellophane producer

A 33,000,000-lb. increase in cellophane supplies for packaging is indicated in the announcement by E. I. du Pont de Nemours & Co., Inc., that it has licensed Olin Industries, Inc., East Alton, Ill., to produce cellophane under the Du Pont patents and will assist it in setting up a plant with that annual capacity.

The Du Pont announcement made it clear that the move was a rebuttal to the recent suit by the Department of Justice, charging that Du Pont monopolized cellophane production and sale. The suit is scheduled for trial next year.

The investment of Olin Industries, which is known as a manufacturer of firearms and ammunition, electrical, chemical and other products, is estimated at a minimum of \$20,000,000.

Late last month Olin Industries announced that it had purchased the Ecusta Paper Corp., at Pisgah Forest, N. C., and would locate initial facilities at that plant, shortening by at least four to six months the time required for Olin to begin the manufacture of cellophane. The Ecusta company manufactures cigarette paper and other grades of fine paper, and the manufacturing processes of these products are fundamentally very similar to the manufacturing processes used in making cellophane, the announcement said. No estimate was made as to the expected start of the cellophane building program or the start of Olin cellophane manufacture.

Arlington Kunsman, head of the Cellophane Division of Du Pont's Rayon Department, said the deal "promises the easing of a situation that has bothered all concerned for several years." This is true, he said, both because of Olin's entry into the field and because the only other manufacturer of cellophane, the American Viscose Co.'s Sylvania Division, "has already announced a considerable expansion of its capacity."

"During the war, and since, except for a short period, there has been a shortage of cellophane," he said. "Under normal circumstances, Du Pont would have built additional capacity. However, the Department of Justice filed suit against the Company, alleging that it already controlled so large a percentage of the market as to be guilty of monopoly."

"This being the case, we did not feel warranted in spending the stockholders' money in expansion in this field. Instead, we turned to the alternative of finding additional sources of production."

The contract with Olin, he said, was the outcome of efforts for more than a year to find a company willing and able to invest at least the \$20,000,000 considered necessary to enter the field on an economically efficient basis.

In the contract Du Pont agrees to license Olin under all its cellophane patents, supply full technical information, help pick a plant site, design and build an eight-machine factory with an estimated capacity of some 33,000,000 lbs. of cellophane a year, assist in training personnel and putting the plant into commercial opera-

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Pick-ets are tops in easy handling, cleanliness, and uniformity. Cheaper too, because they give you top performance, and because there are no chunks to break up — no fine powder (oxidized pick-up that won't melt under usual temperatures) to cause sludge in your glue pot.

Pick-ets melt faster and more evenly. This means freedom from temperatures that drop below the pick-up point because of big lumps being put in.



Pick-ets are uniform, perfect spheres. They can be scooped with a small can and the exact amount added each time.

The three grades — green for cold — amber for normal — and red for hot — handle a range of cans from 35-150° F. Write for samples NOW.

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Apply trade names, trade marks, numbers, insignia, specifications directly to product.

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The new Kraissl Class 23 pumps completely eliminate undesirable oil vapors from discharged air. In many operations, this means a tremendous saving to you—in time, materials and industrial health. Pumps are dry lubricated—displacement blades take up their own wear. Positive, fan-cooling for continuous high performance. Available with double extended shaft for group installations from single power source. Performance data: 1750 RPM, but not limited to this speed. Capacities from 5 cfm—20 cfm, for single units; larger capacities by group drive.

Kraissl Class 23 pumps are specifically designed for all packaging and printing machinery, and similar applications where air pressure or suction, without discharge oil, is preferable.

- Suction feed or pick-up of paper, cardboard, tin, etc.
- Container-filling: bags, bottles, tubes, etc.
- Automatic handling on conveyor systems
- Packing in shipping crates and cases
- Printing presses and acuum printing frames
- Vacuum canning machines
- Vacuum holding chucks
- Ideal for handling food products, beverages, pharmaceutical preparations—where rigid sanitation standards are mandatory

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tion. Olin pays a fixed fee for plant design and construction and for licenses and know-how.

John M. Olin, president, said entrance of his corporation into the cellophane-making business "is a logical expansion into a field in which Olin already has wide experience."

"We have conducted intensive research for many years in cellulose and related materials and products in connection with our explosives and chemical business," he explained. "Many of our production processes closely parallel those used in the manufacture of cellophane."

19th Packaging Exposition

The American Management Assn. has formally announced that its 19th National Packaging Exposition, annual market place for packaging, packing and shipping materials, machinery, services and design, will be held April 24 to 27 at the Navy Pier in Chicago.

J. M. Cowan of the Dobeckmum Co., chairman of the Exhibitors' Advisory Committee, estimated attendance of the 1950 Exposition will exceed 14,000.

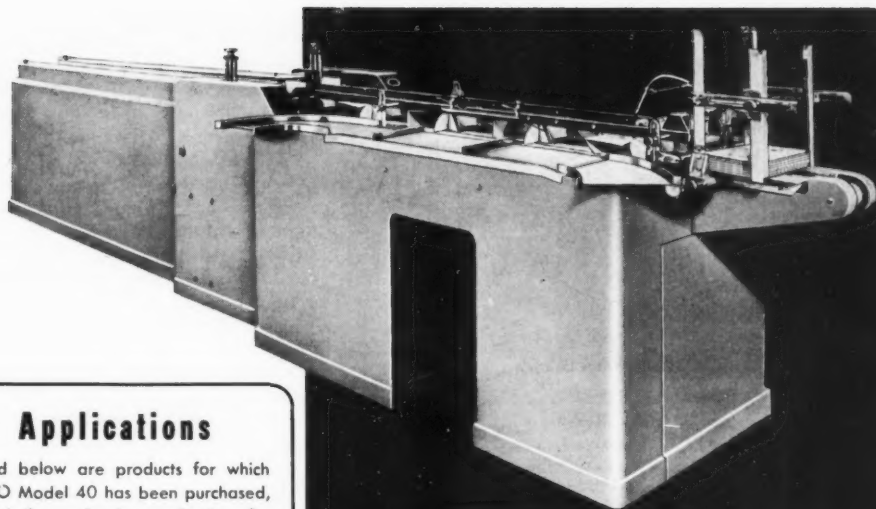
At the same time Mr. Cowan made public results of an analysis of the attendance of this year's Exposition in Atlantic City. Representatives of over 5,000 firms in 400 industries explored the products and services offered by 200 exhibitors in this \$6 billion-a-year packaging, packing and shipping industry.

More than 40% who attended, he pointed out, were either owners, officers or held other top management positions in their companies. Thirty-three per cent were packaging specialists or technicians upon whom top management depends heavily in making purchases and 15% were sales executives, department heads, etc.

Representatives of manufacturers, distributors, jobbers, converters and laminators of packaging and packing materials accounted for 26% of the attendance; 16% were processors, packers, jobbers, growers and distributors of food, dairy products, coffee, tea, cooking oils, shortening and other grocery items.

Eight per cent of the total attendance came from companies manufacturing or distributing drugs, cosmetics, disinfectants, surgical instruments and supplies, dental and sanitary goods, and others in the pharmaceutical category. Six per cent were from the chemical field; 5% machinery and parts industries; 4% manufacturers and distributors of confections.

Among the other industries with large representation were hardware and building supplies; textiles and apparel; grocery items other than foods, such as soaps and cleansers, cleaning tissues, paper cups and napkins; electrical and small consumer items such as gifts, toys, leather goods, cameras, kitchen utensils and novelties. Four per cent of the total attendance came from service organizations such as advertising agencies, consultants, designers, engineers, associations, artists and others performing similar services.



Applications

Listed below are products for which CECO Model 40 has been purchased, and similar packaging applications for which it is suitable. If you have any special packaging problem, write us.

★ CAKE MIX

Also gelatin desserts, puddings, flour mixes, powdered eggs, and any product that is packed in an inner bag.

★ BOOKS

Packed in mailing cartons. Also similar solid items.

★ MULTIPLE ENVELOPES

Groups of sample envelopes packaged for mailing to prospective customers. Also for pre-measured quantities of chemicals, soaps, gelatin, rinses, and washes.

★ CAKES and PIES

Also other kinds of baked sweet goods.

★ AUTOMOTIVE PARTS

Packages any single items, many multiple items, and tray kits composed of many parts.

★ COLLAPSIBLE TUBES

Also suitable for bottles, jars, and most pharmaceutical and drug items.

New **CECO** Model 40 Automatically Packages Many Different Products at Low Cost

CECO Adjustable Model 40 is truly a universal automatic packaging machine. Purchasers include some of the world's largest corporations as well as small concerns packaging a wide variety of cartons.

Quick adjustability for different products and carton sizes by inexperienced help without tools make CECO Model 40 the most versatile cartoner ever built. Simple construction means low upkeep. CECO Model 40 feeds cartons from a stack, sets them up, and closes them in three alternate ways:—glue-sealed both ends, or sealed one end and tucked in on the other end, or tucked in on both ends. The machine is ideal for packing unit items such as baked goods, machine parts, bottles, and products in bags. See the list of applications.

Best of all, the low initial cost of a CECO Model 40 can be paid back out of savings in labor alone well within one year. Get details of this versatile, portable machine today.

SEND FOR NEW CECO MODEL 40 BULLETIN

CONTAINER EQUIPMENT CORPORATION

MEMBER, PACKAGING MACHINERY
MANUFACTURERS INSTITUTE

214 Riverside Avenue

Newark 4, N. J.

Baltimore • Chicago • Jackson • Pittsburgh • Rochester
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The PerfeKtum AMPWASH Rotary Type MODEL RW-3

This machine was especially built for concerns whose production requirements necessitate flexible equipment to wash a wide variety of different sizes and shapes of ampuls, vials and bottles. The unique design makes this machine adapted for rapid change-over from one size container to another without the usual complicated adjustments.

*Write for literature on the AMPWASH and other
ampul washing, filling and sealing equipment.*

**PerfeKtum
PRODUCTS COMPANY**

Established 1922

300 Fourth Ave. New York 10, N. Y.



ATTENTION FOIL CONVERTERS

**We can supply HEAT
SEALING FOIL in rolls,
including widths from
36" to 50" for laminat-
ing to other materials.
Write today for samples
and prices.**

THE FLOYD A. HOLES COMPANY
1080 NORTHFIELD ROAD
BEDFORD, OHIO

Meat pre-packaging

(Continued from page 90) stores regarded pilfering as a problem, reports ranging from 1 to 2% loss from this cause. To counteract, stores asked their employees to be alert, used store detectives, used spotting mirrors, or located the case where it could always be watched.

Only 13 stores mentioned switching of labels on packages by customers as a problem. Where this did happen, stores were chiefly concerned because other customers received mislabeled packages.

In the beginning, some stores wondered about the shelf life of pre-packaged meats—that is, how long they would remain salable. About 76% of the replying stores said their fresh beef, veal, pork and lamb remain salable a maximum of 48 to 72 hrs., with the majority leaning to the 48-hr. limit. From 15 to 19% of the stores believed that the maximum life of these various products was 24 hrs. and from 3 to 11% at the opposite extreme felt the maximum package life was over 72 hrs. These general figures, of course, do not take into account differences in methods of handling, amount of refrigeration, condition of meat at time of pre-packaging and the type of package used.

These stores reported it would take considerable equipment to handle a large volume of pre-packaged meat—conveyors, sealing equipment, wrapping machines, germicidal lamps, check scales and refrigerated display cases. However, many of them were getting by on the minimum equipment, wrapping by hand and dispensing with much of the other equipment.

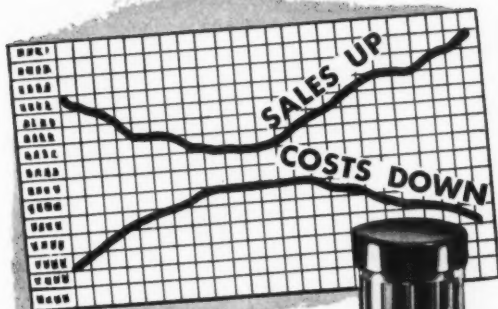
One of the indispensables was, of course, an attractive refrigerated display case. More than half the stores had from 48 to 80 linear feet of this space; 23 had from 32 to 48 linear feet; 11 had from 8 to 32; 8 had from 80 to 112 linear feet. Naturally enough, as volume of business went up, so did linear feet of display space. Dollar sales per linear foot of display case increased from \$36 for volume of \$2,000 and under, to \$116 in stores with a sales volume of \$10,000 and over.

Only one of the stores surveyed used a mechanical wrapping machine. Most of the retailers contacted said they felt that problems other than mechanical wrapping were more vital at the time of this survey.

Germicidal lamps showed up in 35 of the stores in the meat-cooling rooms. In addition, 10 of these stores also used lamps in the wrapping rooms and three in the cutting rooms. Only one had installed such lamps in the display cases. Twenty-three store operators thought the lamps an economical investment; three said they were not economical and nine hadn't yet made up their minds.

Only three departments had humidifiers or other equipment to prevent dehydration. Fifty per cent of the stores kept scales in the self-service meat departments for customers to check weights if they wanted to.

That's the meat pre-packaging picture today—most of it good, though some maverick problems still persist. The meat dealers are looking to their packaging suppliers to help iron out these problems.



Why your
Packaging Dollar
Goes Farther
in
LUSTEROID

Good products do even better when they go to market packaged in Lusteroid, the modern plastic container that merchandises while it protects.

These light-weight vials and tubes are strong, rigid, shatterproof, and they give you essential product visibility at the point of sale. They are available in all colors of the rainbow to attract buyers. Lusteroid is printable so that your label and sales message are an integral part of the container.

All these advantages add up to smart merchandising and increased sales at real savings. The light-weight cuts handling and shipping costs. No protective packing is necessary. The printing eliminates hand-labeling expense.

PRICE REDUCTION

All prices on Lusteroid containers have been reduced 10% due to increased volume and production economies.

Standard sizes from $\frac{1}{4}$ to $1\frac{1}{2}$ inches in diameter and lengths up to 6 inches. Cork, slip-on or screw-cap closures.

Write for quotations today.

LUSTEROID CONTAINER COMPANY, INC.

10 Parker Avenue, West
Maplewood, New Jersey



more

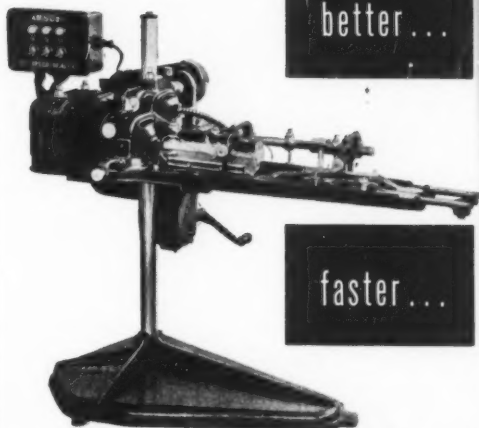
bags

heat

sealed

better...

faster...



You find every packaging feature that "pays off" for you in increased production at lowest cost in Amsco bag sealing machines. Maintains a fast, steady flow of sealed bags with no handling—bags automatically carried through folding, and sealing operations:

No other machines offer so much for so little!

FREE! WRITE TODAY FOR ILLUSTRATED BROCHURE AND INFORMATION ABOUT Machines for ☐ Bag Sealing ☐ Bag-Making, ☐ Bag or Carton Filling, ☐ Wrapping, ☐ Sheeting-Gluing.



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FINE *Labels*

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Free consultative service on hard-to-label packages. Ideal for cellophane, pill-film wet or frozen packages, wood, rubber textiles.

Our Art Department has created many prize winning packages. We can improve your present design or originate a sales creating new package.
Fast Service—Careful Execution without price premium.

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LABELS—BOX WRAPS—SALES CREATING MATERIAL

Office & Factory
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Cans with Sales Appeal

A complete custom service from sketch to a finished product that is exclusively yours. Your lithographed containers combine easy brand identification with ideal product protection.

We also manufacture a complete line of round cans with stock designs for candies and cookies.

Let Empire quote on your requirements. We should get acquainted.



"No other container protects like the can"

Empire Can Corp.

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'50 industrial packaging show

The National Directorate of the Society of Industrial Packaging and Materials Handling Engineers has decided to hold its fifth Annual Industrial Packaging and Materials Handling Exposition in Convention Hall, Philadelphia, in late September or early October, 1950, according to R. F. Weber, International Harvester Co.,



Left to right
—R. C. Sell,
Paul O. Vogt,
Stanley Price.

board chairman. Dates being considered by Exposition exhibitors are Sept. 26 to 29 and Oct. 10 to 12.

The Annual Packaging and Materials Handling "Short Course," held in conjunction with previous S.I.P.M.H.E. expositions, has become such a popular part of the exposition activities that it will be continued in Philadelphia, the first time it is to be held in the East. The 1950 "Short Course" will be conducted under auspices of Community College, Temple University. H. C. Rountree, dean of the college, will develop the "Short Course" instructional program.

R. C. Sell, general traffic manager of the Koehring Co., has been elected president of the Society for 1950 and 1951. Other newly elected officers include Paul O. Vogt, General Electric Co., vice chairman of the board; R. F. Weber, International Harvester Co., chairman of the board. The newly elected executive vice president is Stanley Price, Western Electric Co. Three regional vice presidents were elected as follows: W. Gordon Bennett of Anaconda Copper Mining Co. (Eastern); J. H. Singer of National Container Corp., the only re-elected vice president (Midwestern); Gale C. Cunningham of North American Aviation, Inc., (Western). J. L. Ware of Sears, Roebuck & Co. was retained as the society's treasurer and H. E. Brill of Mid-States Container Corp. becomes the newly elected secretary.

Accused of monopoly

The Federal Trade Commission has accused Henry J. Taylor, radio commentator and author, of creating a monopoly in unpatented waxed paper wrappers, manufactured and sold under his own trademark, Ad-Seal-It, and collecting \$1,300,000 in royalties from other waxed paper manufacturers whom he purportedly licensed on a royalty basis.

Mr. Taylor, trading as Package Advertising Co., 230 Park Ave., New York, was prohibited by the commission from "coercing and inducing other manufacturers into license agreements under which they are required to sell unpatented wax paper bands, used in the wrapping of bread and other bakers' products at uniform minimum prices established by Taylor." According to

shopper

stopper



the oval doric

Page 4
of our new
catalog.
Write for
yours!

No.	Top	Side View	Bottom	Price
1000	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2"
1001	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2"
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1003	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2"
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1008	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2"
1009	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2"
1010	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2"

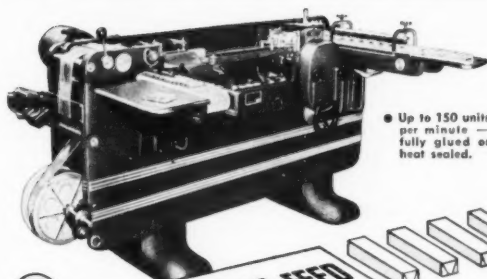
A new line for cosmetic packaging. A special line in practical line of Glass packaging. The Doric line all you want in glass bottles. Your dealer guarantees the quality of all the bottles, and the service has been designed not only for beauty in appearance, but also for good production on your filling line. The Doric will be used for only better priced packages. In the best of our service, we will be available in several wide-mouth bottles for sales, etc. For a new glass line — or for the old line — the dealers in Canada the Doric.



A Charbert package of beauty, using a famous stock bottle of Braun's — the Oval Doric.

GLASS CONTAINERS AND CLOSURES **W. BRAUN Co.**

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• Up to 150 units per minute — fully glued or heat sealed.

CONTINUOUS FEED

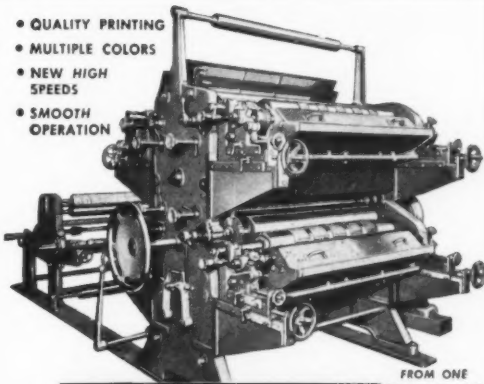
HIGH SPEED PACKAGING

INCREASE wrapping production with savings in time, money, labor and materials. Wraps products of all shapes with materials of all types — without stiffeners and without breakage — even to fragile products! Only one operator and one helper required. Also available with hopper feed for wrapping stick candy and similar cylindrical products. Write for illustrated brochure and complete details.

Campbell
WRAPPER

HUDSON-SHARP MACHINE CO. • GREEN BAY • WIS

- QUALITY PRINTING
- MULTIPLE COLORS
- NEW HIGH SPEEDS
- SMOOTH OPERATION



FROM ONE TO SIX COLORS

ANILINE PRESSES

New designs and new presses to meet every production demand. Widths from 10 to 100 inches with from one to six color printing. Illustrated, is 4 color stack type press with center shaft rewind. Many other models now available. Write for further information.

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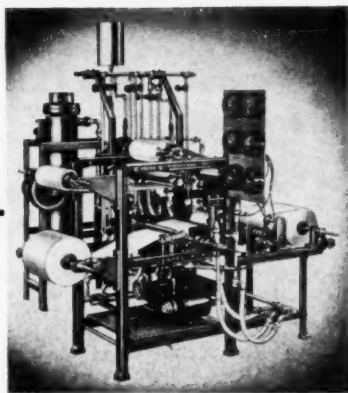


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THE MULTIPRESS

Finest high speed small unit made for every type of imprinting on folding cartons, paper products, booklets, labels. 6500 impressions per hour. Ideal for imprinting batch numbers, blockouts, flavors, colors, prices, codes, dates, sizes. **MULTIPRESS** solves your coding problems!

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The New Haida Laboratory **Hot Melt Coating and Laminating Machine.** Model LHC-90. Also production models.

HAIDA ENGINEERING CO.

34-11 VERNON BLDG., LONG ISLAND CITY 6, N. Y.

Foil Laminating Machines. Complete plants for the manufacture of **Carbon Papers**, Spirit Carbon Master Forms, Dry Stencils, Typewriter Ribbons, etc.

the findings of the trade commission, Mr. Taylor owned two patents, one covering the method of applying the bands to the wrappers and the other covering the package resulting from use of the method patent. An FTC spokesman explained that the commission held that while Mr. Taylor had patented the method this did not give him control over the manufacture and sale of this method.

Mr. Taylor said that the FTC order was "entirely academic," since the licensing agreements referred to had terminated in March along with the patents of the bread wrapping method. He said his company, which also manufactures the wrappers, issued licenses without charge and required from licensees a uniform royalty on sales actually made.

Boosting the thermometer

(Continued from page 107) units, few in number, yet sufficiently flexible to permit use for the entire product line.

However, these difficulties were overcome and, according to the Tagliabue company, the completed design has achieved all of the original objectives. Included in these were:

1. Vastly improved product protection (package survived a series of severe durability and mailing tests);
2. Elimination of individual wrapping that required the use of cotton, tissue and other filler materials;
3. New shape of container for easy stocking;
4. Facility of assembly at point of shipment;
5. Attractive appearance for visual appeal;
6. Instant visibility in opened box, with good display value;
7. Ease of labeling for clear, prominent identification of contents;
8. Uniform design, which reduces the number of container sizes necessary to package the entire line;
9. Plenty of room left on the package exterior for the dealer's label.

It is felt by the Tagliabue corporation that customers will like the fact the package serves as a convenient shelf-storage container, in which the thermometers can be kept in stock. And dealers can verify contents at a glance and check for breakage that may have occurred in transit. Appreciably lessened, too, is the danger of accidental breakage in handling, since it is now so easy to remove or replace thermometers.

Slightly higher initial per-package costs are more than regained through multiple packaging and other merchandising advantages which provide distinct marketing economies. With six to a package, the package cost per thermometer is 48.7% less than previously and, with only three to a package, there is still a 1.3% saving per thermometer. Initial studies indicate that packaging time is 38% faster.

CREDIT: Complete package, Newark Paper Box Co., Newark, N. J.

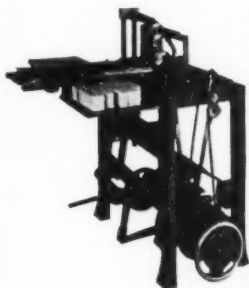
SPEED AND ECONOMY

Mechanization is the key to greater profits and success. Peter's Carton Packaging Machinery has been developed to help you automatically produce better cartons with greater SPEED and ECONOMY.

They are important factors in carton packaging operations, since they save on time, labor and materials.

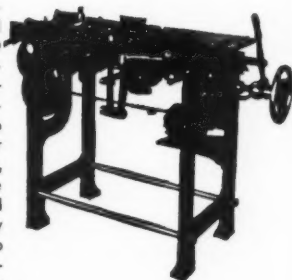
Besides the "Junior Model" machines illustrated below, PETERS has available a "Senior" line of packaging machines to fill high production requirements.

Send us samples of the cartons you are now using. We will gladly make recommendations for your requirements.



This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35-40 cartons per minute, requiring only one operator. After the cartons are set up, they drop onto a conveyor where they are carried to be filled. Machine can be made adjustable to set up several different size cartons.

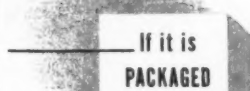
This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE closes 35-40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made adjustable to close several different size cartons.



PETERS MACHINERY COMPANY

GENERAL OFFICE AND FACTORY

4700 RAVENSWOOD AVE. CHICAGO 40, ILL.



You can MOVE IT FASTER...
BETTER...
and at LOWER COST...

on a *FINGERPRINT ENGINEERED*

CONVEYING SYSTEM

Cost-conscious management, these days, is giving increased attention to the movement of goods and materials. Frequently changes suggested by Alvey-St. Louis engineers have resulted in real economies... in increased production... Want to know the reason why? From their years of experience Alvey-St. Louis engineers know that just like fingerprints, no two plants are identical. Each problem, therefore, is given individual study and attention... what we call Fingerprint Engineering. Without obligation, why don't you investigate what an Alvey-St. Louis engineered conveying system man can do for you? Detailed catalog will be sent on request.



ALVEY CONVEYER MFG. CO., 3205 S. Broadway, St. Louis 18, Mo.



Don't Give Away Profits . . . Install Modern Triangle Package Machinery

IT'S just as if you gave away part of your daily production of packaged goods when you use inefficient, costly packaging methods. Users of Triangle packaging machinery regularly report savings of 25% and more in packaging costs—money that is added to their net profits.

FOR EXAMPLE: The Triangle Model CV-6 Volumetric Filler illustrated is credited by several large food packers for reducing their packaging costs as much as 50%. Unsurpassed by any other unit in its price range, semi-automatic, one-operator, filling free-flowing materials into any style container, this machine will package as fast as the operator can work! Fills 8 oz. to 3 lb. packages at 30 to 40 per minute. Can also be installed as fully automatic machine with synchronized conveyors.

This is only one of a complete range of Triangle machines for weighing, filling and carton sealing dry materials into any style containers. If you package cookies, candies, popcorn, nutmeats, powders, tablets, granules, flakes, grocery staples, macaroni products, etc., investigate space saving, labor saving, cost cutting Triangle packaging machinery.

For complete recommendations, send sample filled package and state production requirements . . . Triangle will give you the facts and figures on the machine for your needs—without obligation.

Ask about the Triangle Pay-As-You-Package Plan

TRIANGLE PACKAGE MACHINERY CO.

6650 W. DIVERSEY BLVD., CHICAGO 35, ILL.

Sales Offices: San Francisco, Denver, Dallas, Atlanta, New York, Pittsburgh, Boston, Jacksonville. Branch Factory: Los Angeles.

Western Packaging Assn.

Organization of the Western Packaging Assn. was completed at a meeting in the Clift Hotel, San Francisco, Oct. 19. Outgrowth of the Western Packaging Exposition & Conference, which was started by Clapp & Poliak, exposition management firm, in 1948, the new association is to be composed of "Western firms engaged in the manufacture and sale of packaging machinery and supplies, materials handling and processing equipment." More than 50 such companies have enrolled as members, according to the announcement.

Clapp & Poliak announced early in October that the Third Western Packaging Exposition & Conference would be held in San Francisco the week of Aug. 13, 1950.

Heading the new organization as president is William H. Jaenicke, president of Mailer Searles, Inc., San Francisco. Other officers are: president elect, Leo Blank, Stecher-Traung Lithograph Corp., San Francisco; vice president, Fred Todt, Fred Todt Co., Los Angeles; secretary, Kenneth K. Dean, *Good Packaging*, San Francisco, and treasurer, Peter D. Bowley, Peter D. Bowley & Associates, San Francisco.

Elected as board members are Hugh Hicks, Marathon Corp., San Francisco; E. H. Southwell, E. H. Southwell Co., Los Angeles, and N. C. Phillips, L. H. Butcher Co., San Francisco.

Mailing address of the association is 210 Mississippi St., San Francisco 7.

Selling re-used flour bags

Once-used cotton flour bags made into extra-large kitchen towels are being attractively packaged in cellophane bags for sale in Minneapolis grocery and dry-goods stores. Working in cooperation with the Textile Bag Mfrs. Assn., Leef Bros., Inc., an industrial laundry



in Minneapolis, buys 100-lb. cotton flour bags from the wholesale bakers who have emptied them. The bag seam is removed, the cloth is washed and a kitchen towel is made by making an

overcast stitch along the raw edges. The towels are packaged two to a cellophane bag, specially printed in yellow and blue, which makes an attractive shelf-display package.

The cotton-bag salvage program of which this is a part is now converting about 1,500,000 cotton bags per month into kitchen towels or selling the dress-print cotton bags as dry goods for home sewing. The bakers who sell the bags to bag converters are able to get back a substantial part of their flour-container cost under this program.

CREDIT: Cellophane bag, Bemis Bro. Bag Co., St. Louis, Mo.

MODERN PACKAGING

Greetings to All



Our Best Wishes
for the
Holiday Season
and the
New Year
Ahead

**PETER
PARTITION
CORP.**

Manufacturers of
Paper Board
Partitions

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DRINKING CUPS



made with Arabol Adhesives—even on high speed equipment and with different sources of paper supply—withstand hot liquids and give no off-taste.

PAPER TUBES



or canisters—spiral or convolute—are given greater protection with Arabol Adhesives against outdoor elements, damp cellars, liquid contents, etc.

FOIL LAMINATED



to litho paper with Arabol Adhesives can be embossed, without delaminating or showing crow-foot markings.

PAPER BAGS



—made with Arabol Adhesives—have withstood some of the stiffest tests in terms of type of contents, handling methods and storage conditions.

Your Arabol Representative has the backing of his company's long experience in serving the leaders of more than a hundred industries. Let him suggest ways whereby Arabol Adhesives can speed up your production and increase the protection of your product. Some problems can be solved right in your own plant in one day's time. Three laboratories are available for more complicated problems.

THE ARABOL MANUFACTURING CO.

Executive Offices: 110 East 42nd St., New York 17, N. Y.

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All classified advertisements payable in advance of publication. Rates: \$5.00 up to sixty words; enclosed in border, \$10.00 per inch.

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For further information address Classified Advertising Department, MODERN PACKAGING, 122 East 42nd Street, New York 17, N. Y.

MODERN PACKAGING reserves the right to accept, reject or censor classified copy.

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MACHINERY FOR SALE

STOKES SEMI-AUTOMATIC Tube Closing and Sealing Machine, Model No. 79 D.H. Machine is in very good condition. \$400. Abbe Sifter Blenders, Model No. 450. Dental Perfection Co., 343 West Arden Avenue, Glendale 3, California.

NOW AVAILABLE at bargain prices. Pneumatic Scale Co. Automatic Cartoning Unit Consisting of Automatic Carton Feeder, Bottom Sealer, Rotary Filling Machine, Top Sealer and Interconnecting Conveyor. Standard Knapp No. 429 Carton Sealer, 10 and 16 ft. Compression Units. World Straightline Bottle Labeling Machine, 120 per min. Bart Automatic adjustable Wrappers, Can & Jar Labeler. Stokes & Smith G3 and Automatic Duplex Auger Powder Fillers, Cap-press attachment. Triangle SHA Auto Net Weigher and Carton Sealer. Filler 1, 4 and 8 Head S.S. Piston Fillers. Ceco Auto Carton Closing Machine. Triangle U1 Auger, G2C and A60A Electric Pak Fillers. Horis S.S. Rotary Gravity Filler. Pneumatic Scale Auto. Tite-Wrappers. Package Machinery Model FA and FA2Q Wrappers. Hayssen 3-7 and Seandia SSU1 Automatic Wrappers. Union Standard Equipment Company, 318-322 Lafayette St., New York 12, N. Y. Canal 6-5335.

CECO CARTON Glue Sealer, Model A3901-12, adjustable, 6 foot feeding conveyor, 12 inch carton pusher spacing, 12 foot compression unit. With automatic glue pump. Very little used, almost like new. Priced for quick sale \$1250.00, Co. b. Windsor, Conn. Trans Flex Packagers.

MISCELLANEOUS

WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polystyrene, Vinyl Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 781, Modern Packaging.

WANTED—SIMPLEX Bag Making Machines—Models 1 and 4. Cellophane Slitter up to 12". Cellophane Tube Machines. Combination Glassine and Cellophane Machine. Beck Sheeter and Electric Eye. Schultz Automatic. A Hayssen or Package Machinery wrapping unit. Box 900, Modern Packaging.

FOR SALE . . . Wax Paper, 40 lb. 10 1/2" rolls. Golden wax, unprinted 50 rolls. Wax Bags, laminated. Will close out cheap. Write for sizes and prices. Also stubs of 10" rolls ploffim unprinted. Address Dairy Products Co., Inc., 1622-24 Second Ave. South, Birmingham, Ala.

WANTED—GREASEPROOF PAPERS, Grades A and C, Types 1 and 2. Heat Sealable Foil Barrier Material. Write complete details. Box MP292, 221 W 41 St., New York, N. Y.

HELP WANTED

"HORNE-BILT" packaging conveyors, Unscramblers, Accumulating Tables, Transfer Discs, etc. Complete conveyor line, engineered to fit all situations. Easy to price and sell. Some good territories open. State what territory desired and what facilities available. Horne Machinery Co., Inc., 1188 Harrison St., San Francisco 3, Cal.

WANTED—Young man with technical knowledge and background in aluminum foil rolling, annealing, and texturing. Engineering degree desirable but not necessary. Excellent opportunity. Give full qualifications. Box 902, Modern Packaging.

FACTORY SUPERINTENDENT—Long established cellophane converter in large middle western city has opening for experienced plant superintendent. Approximately 150 employees. Replies confidential. Our staff knows of this ad. Box 908, Modern Packaging.

REPRESENTATIVE—Old established New York mfr. of metal screw caps and various well known specialty closures has Pennsylvania territory available to experienced man now selling packaging supplies to drug, food and other glass packers. Substantial accounts now served in this territory. Commission. Box 903, Modern Packaging.

CHICAGO AND VICINITY—Energetic representative to sell Fillmaster Vibratory Filling Machines and equipment for semi-automatic and fully-automatic filling of dry and semi-dry products. Furnish full particulars concerning present lines, background, experience and contacts. Stuyvesant Engineering Company, 107 Stuyvesant Avenue, Lyndhurst, New Jersey.

DESIRE REPRESENTATION by Packaging Specialist. AAAI Ohio Company specializing in rigid molded plastic containers desires representation by Company or individual with broad packaging background and creative ability. Box 904, Modern Packaging.

WANTED: BAG ADJUSTER, knowledge of heat-sealing cellophane and equipment essential. Roto Bag Machine experience preferable. Excellent opportunity. Write full details. Address Box 905, Modern Packaging.

MANUFACTURERS REPRESENTATIVE to handle complete line of polyethylene bags. Prefer man who has 1 or 2 allied lines. Should be contacting paper jobbers, paper merchants, food and drug packagers, etc. Good territories open. Write Dura-Lee Corp., 1828 Main, Kansas City, Mo. State qualification and lines you have at the present.

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PACKAGING ENGINEER, chemist, last 13 years broad experience with papers, laminations, foils, films, coatings, heatsealing materials; analysis, specifications, wax upgrading, adhesives; all phases of testing raw materials and of packaged products. Can also assist on technical sales, product development and research. Conscientious, dependable, good record. Desires permanent connection with established, progressive organization East or Middle West. Box 907, Modern Packaging.

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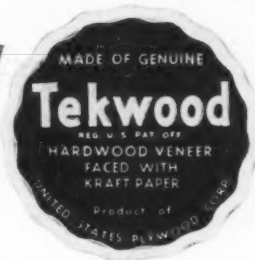
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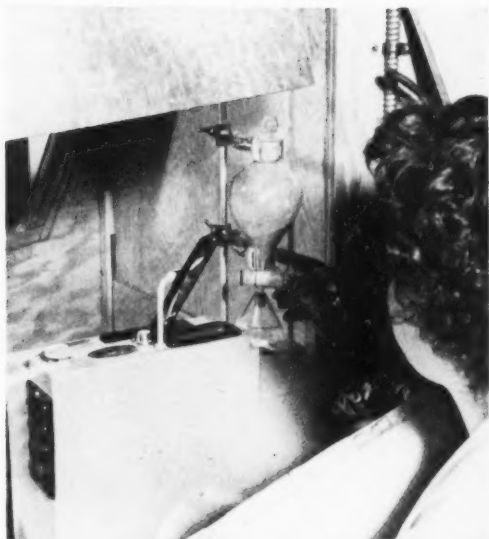
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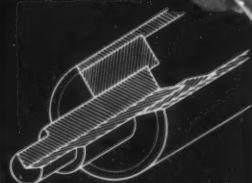
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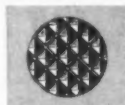
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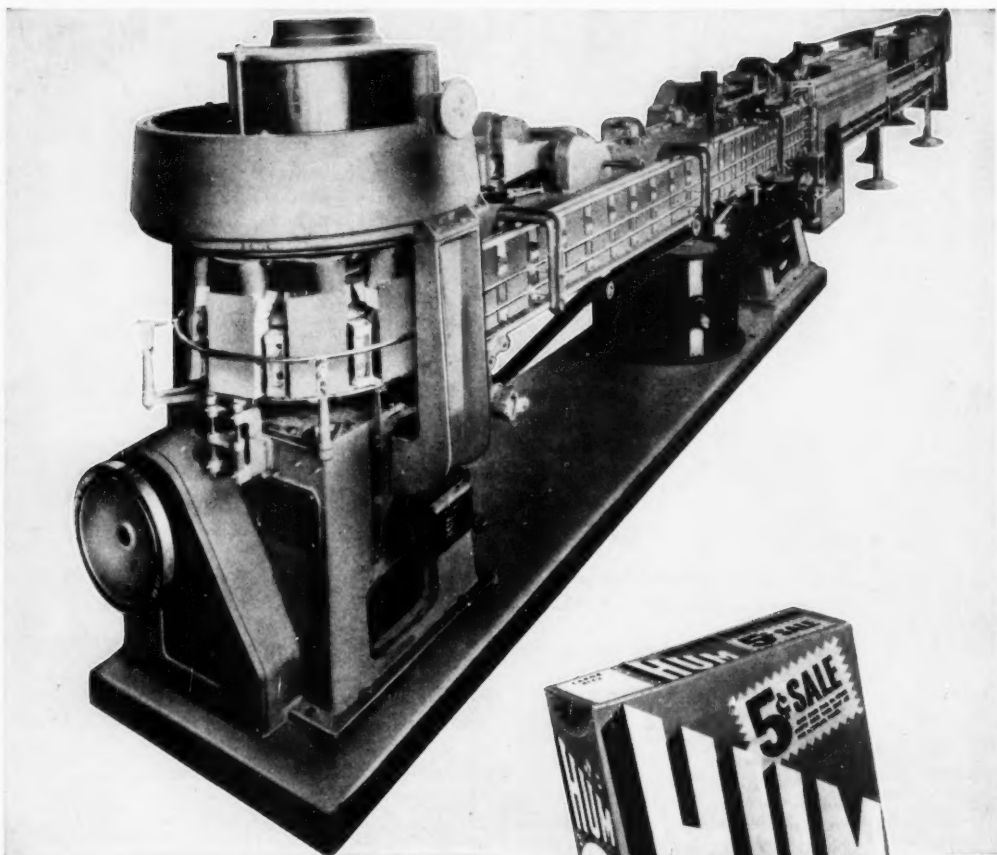
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